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# Beyond command regulation: approaches to the management of urban growth and the conservation of natural resources

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**BEYOND COMMAND REGULATION: APPROACHES TO  
THE MANAGEMENT OF URBAN GROWTH AND THE  
CONSERVATION OF NATURAL RESOURCES.**

**A Sydney Case Study**

A thesis submitted in fulfilment of the requirement of the degree of

**DOCTOR OF PHILOSOPHY**

from

**UNIVERSITY OF WOLLONGONG**

by

**PETER JOHN WILLIAMS**

**BSc *UNSW*, BLegS MEnvPlan *Macq*, MPubPol *UNE***

**FACULTY OF LAW  
2011**

Volume 1



## **CERTIFICATION**

I, Peter John Williams, declare that this thesis, submitted in fulfilment of the requirements of the award of Doctor of Philosophy, in the Faculty of Law, University of Wollongong, is wholly my own work unless otherwise referenced or acknowledged. The document has not been submitted for qualifications at any other institution.

.....

Peter John Williams

December 2011



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## ABBREVIATIONS

ANCA	(former) Australian Nature Conservation Agency
CAP	catchment action plan
CCPSO	County of Cumberland Planning Scheme Ordinance
CMA	catchment management authority
CM Act	<i>Catchment Management Act 1989</i> (NSW)
CMB	catchment management board
CMC	catchment management committee
CMT	catchment management trust
DCP	development control plan
DEC	(former) Department of Environment and Conservation (NSW)
DECC	(former) Department of Environment and Climate Change (NSW)
DECCW	(former) Department of Environment, Climate Change and Water (NSW)
DEUS	(former) Department of Energy, Utilities and Sustainability (NSW)
DIPNR	(former) Department of Infrastructure, Planning and Natural Resources (NSW)
DLWC	(former) Department of Land and Water Conservation (NSW)
DMR	Department of Main Roads (NSW)
DNR	(former) Department of Natural Resources (NSW)
DoP	(former) Department of Planning (NSW)
DPI	(former) Department of Primary Industries (NSW)
DUAP	(former) Department of Urban Affairs and Planning (NSW)
DWE	(former) Department of Water and Energy (NSW)
EDO	Environmental Defender's Office (NSW)
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i> (NSW)
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Cth)
EPA	(former) Environment Protection Authority (NSW)
EPI	environmental planning instrument
ESD	ecologically sustainable development
GCCP	Growth Centres Conservation Plan
HFS	heritage floor space
HNCAP	Hawkesbury-Nepean Catchment Action Plan
HNCMA	Hawkesbury-Nepean Catchment Management Authority
IBCA	Integrated Bioregional Conservation Assessment
IBRA	Interim Biogeographic Regionalisation for Australia
ICM	integrated catchment management
IUCN	International Union for the Conservation of Nature and natural Resources
IWRM	integrated water resource management
LAJTC Act	<i>Land Acquisition (Just Terms Compensation) Act 1991</i> (NSW)
LEP	local environmental plan
LGA	local government area
LGSA	Local Government and Shires Associations of NSW
LRLZ	Landscape and Rural Lifestyle Zone
MDP	Metropolitan Development Program
NAP	National Action Plan for Salinity and Water Quality
NHT	Natural Heritage Trust
NorBE	neutral or beneficial effect



NPWS	National Parks and Wildlife Service of NSW
NRC	Natural Resources Commission (NSW)
NRM	natural resource management
NVC Act	<i>Native Vegetation Conservation Act 1997</i> (NSW)
OEH	Office of Environment and Heritage (NSW)
PDR	purchase of development rights
PVP	property vegetation plan
RCCC	regional catchment coordinating committee
RCP	regional conservation plan
REP	regional environmental plan
RES	regional environmental study
RVMC	regional vegetation management committee
RVMP	regional vegetation management plan
SASPOM	Special Areas Strategic Plan of Management
SATS	Sydney Area Transportation Study
SCA	Sydney Catchment Authority
SCMCC	State Catchment Management Coordinating Committee
SEPP	state environmental planning policy
SPA	State Planning Authority
SRDP	Sydney Region Outline Plan
SWCM Act	<i>Sydney Water Catchment Act 1998</i> (NSW)
TCM	total catchment management
TDR	transferable development rights
TSC Act	<i>Threatened Species Conservation Act 1995</i> (NSW)
UDC	Urban Development Committee
UDP	Urban Development Program
UGB	urban growth boundary
WCED	World Commission on Environment and Development
WSROC	Western Sydney Regional Organisation of Councils



## ABSTRACT

This thesis is set at the juncture of urban growth management, natural resource conservation and environmental protection. Specifically, it examines the management of development – typically the spread of urbanisation – on the rural-urban fringe of towns and cities, from the perspective of conservation and protection of the natural resource and environmental qualities of these areas. The broad problem statement or research question that this thesis seeks to address is: *How can urban growth and development pressures on the fringe of Australian cities and towns – and in particular the Sydney region – be managed so as to assist in the conservation of natural resources and protection of the biophysical environment?* The thesis contends that a wide range of tools or mechanisms should be available to planners and used to manage the environmental or natural resource impacts of urbanisation. The thesis aims to identify the required broad approaches and specific mechanisms for the management of natural resources and land use planning as it relates to urban growth, based on the adoption of three fundamental concepts or frameworks. First is the recognition of the importance of natural resource conservation and environmental protection as an essential characteristic, and objective, of growth management policy, particularly in the context of protecting these values at the juncture of urbanisation on the peri-urban fringe. Second is the acknowledgement of the significant role of the notion of ‘property rights’ in land use planning and decision-making. The third element of the conceptual framework is the utilisation of innovative approaches to growth management, based on concepts such as ‘smart regulation’, market-based instruments, and integrated strategic planning and resource management – that is, beyond traditional ‘command and control’ regulation.

Considerable reliance in the methodological approach adopted for this thesis is placed on primary qualitative research in the form of a number of substantial interviews conducted with a number of officers or office-holders in several government and non-government organisations. Attitudes, perceptions and issues in relation to various growth management tools are distilled through these interviews, with a view to ascertain their rationale, implementation and effectiveness. Information from both primary (i.e. interview) and secondary (i.e. investigation of published or publicly accessible material) original research sources are integrated to progress and complete the analysis of various growth management tools, programs and initiatives currently in place by State and local government organisations in the Sydney region and its environs.



The significance of this thesis lies in the contention that it deals with both an original area of investigation and a problematic contemporary environmental planning issue. Its originality lies in the fact that the thesis seeks to examine the interface of urban growth management and natural resource conservation/environmental protection from the perspective of the appropriate tools or mechanisms to be used in a planning policy and statutory response to these problems. Added relevance of the thesis is provided by the case study to which it is applied, the Sydney region and its environs, where the management of the various aspects of urban growth – including environmental protection and the maintenance of natural resources – is particularly challenging. Particular focus is devoted to the significance and geographic extent of biodiversity, agricultural land and water catchments around Sydney and, by implication the consequential importance of appropriately managing urbanisation so as to achieve a more sustainable city. Application of the approaches and tools identified in this thesis are relevant for the realisation of more sustainable urbanisation generally.

Further specific areas where it is believed that the thesis makes a contribution are in relation to:

- Consideration of the range of broad approaches for the implementation of planning policy and the specific tools or mechanisms available within these approaches.
- Identification of some of the more innovative tools used in existing government schemes or programs that are available to address the environmental and natural resource aspects of managing urban growth management.
- Investigation of the problems associated with the implementation of these tools, and a preliminary assessment of their likely effectiveness of application by State and local government in the Sydney region.
- Recommendation of an appropriate array of policy responses to the issue of managing urban growth in the Sydney region in a way that is compatible with the maintenance of the environmental quality and natural resource conservation – and hence the sustainability and liveability – of Sydney. Specifically key mechanisms such as transfer and purchase of development rights, offsets, conservation covenants, public acquisition of land prior to urbanisation, planning bonuses, cluster subdivision, and financial incentives are identified as warranting further consideration.



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# 1

## INTRODUCTION – MANAGING GROWTH FOR NATURAL RESOURCE CONSERVATION

*Of course, planning policy must continue to seek to preserve Sydney's farms and vegetable gardens by releasing other land first. Ultimately, though, where the choice is between land and lettuce, Sydney will have to take the land. The lettuce, after all, can grow somewhere else.<sup>1</sup>*

### 1.1 Introduction

On 3 November 2005, a media release issued by the office of the New South Wales Minister for Planning, the Hon Frank Sartor MP announced the scrapping of two proposed 'green zones' in the south-west and north-west urban growth centres (that is, new urban release areas) of Sydney.<sup>2</sup> This 'green overlay', designed to preserve existing non-urban land for aesthetic, biodiversity conservation, recreation and agricultural purposes, covered 8,400 hectares in the land release areas, and a further 14,000 hectares outside the growth centres boundary. The decision to abandon these green zones or areas – formally described as Landscape and Rural Lifestyle Zone (LRLZ) under the current Sydney Metropolitan Strategy<sup>3</sup> – was taken, stated the media release, "following widespread public consultation". Reasons given for the

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<sup>1</sup> Editorial, 'On top in Pitt Town: Sartor saves the day', *Sydney Morning Herald*, (Sydney), 6 October 2006, p. 12. This editorial refers to a decision by the NSW Planning Minister, the Hon Frank Sartor, to reduce the number of houses to be built on a planned 225-hectare development on agricultural land in Pitt Town, situated to Sydney's north-west in the Hawkesbury River Valley. Farming in Pitt Town dates back to the establishment of 15 small holdings in 1794. As the editorial correctly pointed out, the Ministerial decision to reduce the density of the development did not affect the denial of the land for farming. Ultimately the trend of continuing loss of agricultural land in the Sydney Basin was not reversed by this Ministerial intervention, but rather just meant that fewer houses would be built on the same land area.

<sup>2</sup> The Hon Frank Sartor MP, 'New Ground Rules for Green Space in Growth Centres', (Media Release, 3 November 2005).

<sup>3</sup> NSW Department of Planning, *City of Cities – A Plan for Sydney's Future*, (Sydney, DoP 2005), <http://www.metrostrategy.nsw.gov.au/dev/uploads/paper/governance/index.html>, viewed 12 June 2006.



decision were basically two-fold. First, the Department of Planning had received more than 3,000 submissions on the growth centre plans over a four-month exhibition period. It was clear, stated the Minister, that “the proposed LRLZ caused widespread concern and confusion, with nine in ten written submissions objecting to the new zone, which affected more than 7,000 properties.”<sup>4</sup> Many landowners complained about a perceived loss of property values and development rights.<sup>5</sup> Second, it was argued that the environmental benefits were limited, because 45% of the land identified for the LRLZ zone had already been cleared.<sup>6</sup>

Putting aside the issue of the poor quality of Departmental mapping and lack of ‘ground-truthing’ resulting in the misidentification of appropriate quality green space, the clear message was that public objection to the green zones was the primary reason for their demise, as both cleared and uncleared green areas were abandoned. This public objection rested on the expectation (whether reasonable or otherwise) that landowners’ land – whose current zoning was not residential – in and around the south-west and north-west growth centres would be urbanised, with the windfall gain accruing to the property owners that this land use conversion process entails. As described in the news media at the time, the ‘dumping’ of the green zone on Sydney’s fringe occurred after “a backlash from landowners angry their properties would not be considered for housing subdivisions,”<sup>7</sup> with fears that “land values in some areas will plummet as a result...”<sup>8</sup>

One clear message from this episode is the role played by property ‘rights’ and concomitant development expectations or ‘rights’ in opposing – and ultimately determining – public policy designed to protect the environmental and natural resource values of the south-west and north-west fringe of Sydney. This role was admitted by the Minister in an earlier media release (9 September 2005) when he

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<sup>4</sup> Ibid.

<sup>5</sup> Department of Planning *New ground rules for the north-west and south-west land release areas, Fact Sheet*, (NSW Department of Planning, Sydney, 2005), [http://www.metrostrategy.nsw.gov.au/dev/digitalAssets/1350\\_1130983357783\\_051103%20fact%20sheet%201.pdf](http://www.metrostrategy.nsw.gov.au/dev/digitalAssets/1350_1130983357783_051103%20fact%20sheet%201.pdf), viewed 11 August 2009.

<sup>6</sup> Sartor, above n 2.

<sup>7</sup> Goodsir, D. ‘Angry landowners winning the war on green zone’, *Sydney Morning Herald*, (Sydney), 9 September 2005, p 3.

<sup>8</sup> Goodsir, D., ‘Landholders rush zoning help line’, *Sydney Morning Herald*, (Sydney), 6 September 2005, p 9.



announced a review of the LRLZ and stated that “the green zones were never intended to change people’s existing land use rights.”<sup>9</sup> It should be pointed out however, that the green zone landowners were expecting more than their existing use rights. Rather, they wanted a right to develop or use their land in way that they were not presently entitled, that is, for residential purposes. This has two significant implications. First, this ‘right’ that was perceived to pertain to non-urban land does not exist even in land already zoned residential, since development consent is first required before residential subdivision and development can proceed. Second, landowner insistence on, and State Government accedence to, such ‘rights’, can only lead to speculation in areas in and around the growth areas not zoned residential. Recognition of these implications was acknowledged in the *Sydney Morning Herald* the next day when it reported:

Developers and groups representing thousands of aggrieved landholders yesterday applauded the State Government’s decision to walk away from a green zoning proposal that had denied property owners the right to cash in on future housing estates.<sup>10</sup>

A further aspect of the State Government’s decision in regard to the abandoned green zones was the announcement that it would attempt to retain some environmental aspirations by focusing on protecting the best sections of vegetation and waterways in the two growth centres. This new approach, developed in consultation with the Department of Environment and Conservation, created four new zones into which land would be classified: flood-prone, urban-capable, urban edge and conservation. Significantly, the approach focuses on biodiversity certification and relies on a new environmental offsets or bio-banking scheme, under which developers contribute financially to the conservation areas of bushland.<sup>11</sup>

Planning implementation of the growth centres component of the Sydney Metropolitan Strategy was deferred to the making of a specific statutory plan in the form of a state environmental planning policy (SEPP), which finalised the release area

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<sup>9</sup> Department of Planning, ‘Statement on Landscape and Rural Lifestyle Zone’, (Media Release, 9 September 2005).

<sup>10</sup> Goodsir, D. “Owners’ joy as state dumps green zone plan”, *Sydney Morning Herald*, (Sydney), 10 September 2005, p 11.

<sup>11</sup> Utilising provisions of the *Threatened Species Legislation Amendment Act 2004* (NSW) and the *Threatened Species Conservation Amendment (Biodiversity Banking) Act 2006* (NSW).



boundaries and the constituent land zones and controls. Work on a draft of this SEPP progressed throughout 2005, and major changes were made to its envisaged land use zones following the State Government's decision to abandon the proposed green zones. A 'final' version of the draft SEPP – minus the now moribund green zones – was released in January 2006 for public exhibition and comment. Subsequently, on 28 July 2006 the Minister for Planning gazetted *State Environmental Planning Policy (Sydney Region Growth Centres) 2006*. However further amendments had occurred in the interim, with the SEPP as gazetted modified from that placed on public exhibition following 750 submissions from members of the public, industry and State Government agencies.<sup>12</sup>

This brief vignette, it is submitted, reveals a number of key factors that must be taken into consideration in contemporary growth management on the rural-urban fringe of Australian cities and towns. First is the deficiency, on their own, of traditional 'command and control' mechanisms such as land use zoning and other planning restrictions to guarantee the protection of non-urban land. Second is the apparent inevitability of continued urban sprawl unless appropriate growth management policy responses can be crafted and implemented to counter this highly profligate form of urbanisation. Third is the role – rightly or wrongly – that claims to property rights play in statutory land use planning and development decisions. Fourth is the understandable reluctance of government to rely solely on the public purse to protect non-urban land (for example, through land acquisition for the provision of green infrastructure). The fifth factor – argued here to be an inevitable conclusion given the previous four considerations – is the role that newer alternative mechanisms such as 'smart regulation' and market-based instruments that operate within the context of property rights can play, particularly in the context of seeking to ensure that natural resource and environmental values are protected in the face of the 'pressure' and expectations of continued urban expansion. Finally, strategic regional land use planning that is integrated with natural resource management is essential if effective urban growth management is to be realised. It is factors such as these that this thesis seeks to consider and address in the context of managing the growth of Sydney.

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<sup>12</sup> Department of Planning, *Managing Sydney's Growth Centres Fact Sheet – New State Environmental Planning Policy (Sydney Region Growth Centres) 2006*; (Sydney, Department of Planning, 2006), [http://www.metrostrategy.nsw.gov.au/dev/digitalAssets/1794\\_1154575936782\\_FACT%20SHEET%20-%20FINAL%20SEPP.pdf](http://www.metrostrategy.nsw.gov.au/dev/digitalAssets/1794_1154575936782_FACT%20SHEET%20-%20FINAL%20SEPP.pdf), viewed 9 September 2006.



Accordingly this introductory chapter elaborates the context and scope of the thesis, addresses the problem statement and research questions, considers the thesis aims, introduces the theoretical and conceptual framework and notion of urban growth management approaches and mechanisms, describes the research methodology employed, and outlines the study outcomes and thesis themes and structure.

## **1.2 Context and scope of Study**

This thesis is set at the juncture of urban growth management, natural resource conservation and environmental protection. Specifically, it examines the management of development – typically the spread of urbanisation – on the rural-urban fringe of towns and cities, from the perspective of conservation and protection of the natural resource and environmental qualities of these areas. This area on and outside the fringe of cities is also described as ‘ex-urban’ and ‘peri-urban’. Terms such as ‘the fringe’, ‘ex-urban’, ‘peri-urban’ and ‘growth management’ are introduced and discussed in more detail in Chapter 2. Also introduced and discussed are terms such as ‘environment’ and ‘natural resources’. As may be gathered above from the brief case study concerning the two outer Sydney growth areas, ‘property rights’ is another concept that requires elaboration. This is because the subject matter of the thesis is also framed within the context of various growth management approaches, which include those that utilise the concept of property rights and other broader market based tools.

The thesis critically investigates the topic areas of growth management, the rural-urban fringe, natural resource conservation and environmental protection generally by analysing relevant literature, policies and case studies from numerous domestic and international sources. It examines public policy instruments for managing urban growth that seek to conserve natural resources and protect the biophysical environment. ‘Public policy instruments’ may be defined as “the set of techniques by which government authorities wield their power in attempting to ensure support and effect or prevent social change.”<sup>13</sup> In the context of the thesis, the public policy

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<sup>13</sup> Vedung, E. & van der Doelen, F., ‘The sermon: information programs in the public policy process – choice, effects and evaluation’, in: Bemelmans-Videc, M., Rist, R. and Vedung, E. (eds), *Carrots*,



instruments concerned are the full array of planning and non-planning mechanisms or tools available to government to achieve the goal of managing growth while sustaining both the natural resource and environmental values of areas affected by that growth.

At a further level, the thesis focuses on these topic areas in the Australian context, and more specifically on the New South Wales and Sydney situations. Particular emphasis is directed to case studies involving the Sydney region, or the application of non-Sydney case studies to this geographic area. In planning terms, this study area consists of the Greater Sydney Metropolitan Region and beyond, embracing the Newcastle, Central Coast, Sydney and Wollongong areas, (see Map 1.1), as well as parts of the South Coast, Southern Highlands and Blue Mountains beyond these areas. The study area also falls within the Sydney Basin Bioregion, which lies on the central coast of NSW and covers an area of approximately 3,624,000 hectares or about 4.53% of the State.<sup>14</sup> It includes a significant proportion of the catchments of the Hawkesbury-Nepean, Hunter and Shoalhaven river systems, all the smaller catchments of Lake Macquarie, Lake Illawarra, Hacking, Georges and Parramatta Rivers, and smaller portions of the headwaters of the Clyde and Macquarie rivers.<sup>15</sup>

The statutory framework within which the NSW land use environmental planning, environmental protection and natural resource management systems operate is also a critical contextual component of this thesis. Central to this framework is the *Environmental Planning and Assessment Act 1979*. An overview description and brief history of this Act and related statutes relevant to this thesis is provided in *Appendix 'A' – Overview of the NSW Statutory Planning System*. Included in this Appendix is a summary of the content of the *Environmental Planning and Assessment Act* and a timeline of major legislative reform to the Act and related statutory enactments and amendments in the fields of catchment management, water resources, threatened species and native vegetation.

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*Sticks and Sermons: Policy Instruments & Their Evaluation*, (New Brunswick, NJ, Transaction Publishers, 1998), p 121.

<sup>14</sup> Thackway, R. and Creswell, I. (eds.) *An Interim Biogeographic Regionalisation for Australia: a framework for establishing the national system of reserves, Version 4.0*, (Australian Nature Conservation Agency, Canberra, 1995),

<sup>15</sup> Office of Environment and Heritage *Sydney Basin Bioregion*, (2011), <http://www.environment.nsw.gov.au/bioregions/SydneyBasinBioregion.htm>, viewed 25 April 2011.



**Map 1.1: The Greater Metropolitan Planning Region of Sydney**



*Source: Department of Planning, 1993.*



The thesis thus deals with the ‘micro’ issues of managing urban growth, natural resource management and environmental protection, and considers the range of statutory/regulatory, policy and market-based instruments available to planners and land use decision-makers. It is posited within the field of socio-legal research which seeks to examine the practical operation of legal and policy mechanisms with a view to making specific policy recommendations. Consequently this concentration precludes a broader politico-economic examination in the ‘critical urban studies’ or ‘urban political economy’ vein of academic commentators such as McLoughlin,<sup>16</sup> Huxley,<sup>17</sup> Sandercock,<sup>18</sup> Troy<sup>19</sup> and Gleeson and Low<sup>20</sup>. These writers look at broader ‘macro’ issues of the role of capitalism and the state in city planning, frameworks of power and the rise of neoliberal ideology in government decision-making, so as to derive *general models* of planning theory. Accordingly, this thesis seeks to provide specific policy responses and recommendations to pressing environmental planning problems, and not a macro general model.

### 1.3 Problem statement and questions to be addressed

The broad problem statement or research question that this thesis seeks to address is:

*How can urban growth and development pressures on the fringe of Australian cities and towns – and in particular the Sydney region – be managed so as to assist in the conservation of natural resources and protection of the biophysical environment?*

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<sup>16</sup> McLoughlin, J.B. and Huxley, M., *Urban Planning in Australia: Critical Readings*, (Longman Cheshire, Melbourne, 1986); McLoughlin, J.B., *Shaping Melbourne's Future?: Town Planning, the State, and Civil Society*, (Cambridge University Press, London; New York, 1992).

<sup>17</sup> Huxley, M. and McLoughlin, J.B., *The New Urban Studies: A Literature Review with Special Reference to Australia*, (Pergamon, Oxford, 1985).

<sup>18</sup> Sandercock, L., *The Land Racket*, (Silverfish Books, Canberra, 1979); Sandercock, L. And Berry, M., *Urban Political Economy: The Australian Case*, (George Allen & Unwin, Sydney, 1983).

<sup>19</sup> Troy, P., *Equity in the City*, (George Allen & Unwin, Sydney, 1981); Troy, P., *Australian Cities: Issues, Strategies and Policies for Urban Australia in the 1990s*, (Cambridge University Press, Cambridge; Melbourne, 1995); Troy, P., *The Perils of Urban Consolidation: A Discussion of Australian Housing and Urban Development Policies*, (The Federation Press, Sydney, 1996).

<sup>20</sup> Gleeson, B. and Low, N., *Australian Urban Planning: New Challenges, New Agendas*, (Allen & Unwin, St Leonards: NSW, 2000); Gleeson, B., *Australian Heartlands: making space for hope in the suburbs*, (Allen & Unwin, Sydney, 2006); Gleeson, B., *Lifeboat Cities*, (UNSW Press, Sydney, 2010); Gleeson, B. And Steele, W., *A Climate for Growth*, (University of Queensland Press, St Lucia: Qld, 2010).



Importantly, the problem statement asks ‘how’ urban growth and development pressures can be managed, rather than merely ‘can’ these pressures be managed. Inferred here is that an array of policies, tools and approaches are potentially at the disposal of planning and natural resource management decision-makers. However, the focus of the question is which of these policies, tools and approaches are likely to be more appropriate from both the viewpoints of effectiveness of results (that is, natural resource conservation and environmental protection) and likelihood of implementation (that is, acceptance by the public and government, administrative complexity etc). Thus while the thesis examines the range of growth management tools and approaches, right from the outset its emphasis – as evidenced by the problem statement – is on the ‘appropriate’ growth management tools and approaches in terms of effectiveness and the pragmatic consideration of implementation.

## **1.4 Study aims**

Potentially, a number of intervention techniques or mechanisms are available to manage the adverse impacts of urban growth on natural resources and environmental quality on the rural-urban fringe. Such mechanisms can be broadly categorised into the following approaches: strategic planning approaches such as bioregional planning and integrated resource management; regulatory approaches such as statutory planning and zoning; and acquisition and economic (or market based) approaches. Included in this latter approach are financial incentives, compensation, and taxation measures, and the acquisition of freehold title (generally compulsorily) and of specific development rights (generally voluntarily).

This thesis aims to identify the required broad approaches and specific mechanisms for the management of natural resources and land use planning as it relates to urban growth, so as to redress the adverse effects of past mismanagement practices and to ensure the sustainability of urban areas and the conservation of natural resources into the future. Pivotal to the thesis is the hypothesis that the adoption of a suite of approaches to urban growth and resource management is crucial to the realisation of ecologically sustainable development. Without the scope for a coordinated and



holistic approach to the management of urban growth and its impacts on natural resources, in a manner that ensures their conservation (and replenishment in the case of renewable resources), long term sustainability will not be possible. Thus, it is contended here that the need for a range of strategic, regulatory, acquisition and market-based tools for the achievement of sustainability is an issue which must be raised above any political arguments over appropriate approaches to the environment. In other words, while philosophical debate in environmental circles has gone on for decades about the comparative effectiveness of differing anthropocentric or ecocentric perspectives, and may continue to do so for many more years, action needs to be taken now to ensure environmental protection.<sup>21</sup> It is in this context of urgent need for an ‘appropriate’ policy response (i.e. broadly acceptable to the major stakeholders – government agencies, business, environmental groups and the community – yet sufficiently robust to be effective) that a number of the urban and resource management tools identified in this thesis are offered as purposive courses of action.

Traditionally in Australia, planning has been highly regulatory in focus, with land use zoning assuming a primary role. Zoning has been perceived as an effective planning tool and so generally is an appropriate and uncontentious mechanism.<sup>22</sup> However, one consequence of a singular reliance on this tool is that where certain specific land uses are sought (e.g. environmental protection or agriculture), zoning can be unavoidably restrictive in its operation. Thus, there are situations in which zoning – or any form of unrecompensed restriction on land use – may be both inappropriate and contentious. Two points are apposite here. The first point is that situations such as that described above in relation to the new urban releases in Sydney could be more beneficially resolved if a broader array of public policy instruments were used in conjunction with land use zoning. Benefits may accrue in terms of satisfying the expectations of property owners to profit from their development ‘rights’, meeting the demand of developers and consumers for more urban land, and facilitating the protection of valuable natural resources. The second point is that there are useful examples of the operation of these other specific tools or instruments for managing

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<sup>21</sup> To see how the philosophical debate over different approaches or perspectives to environmentalism has not really changed over the past 30 years or so, see O’Riordan, T., *Environmentalism*, 2nd edn., (London, Pion Limited, 1981); and Mercer, D., *A question of balance: natural resources conflict issues in Australia*, 3rd edn., (Leichhardt, NSW, The Federation Press, 2000).

<sup>22</sup> See for example: Dawkins, J ‘In praise of regulation’, (1996) 33(1) *Australian Planner* 10; Walton, J ‘In praise of certainty’, (1997) 34(1) *Australian Planner* 12.



growth existent in both the North American and European contexts. Importantly, some of these mechanisms are also evident – though usually in more embryonic form – in Australia as well. Assembled as a public policy package, mixes of these tools appropriate to individual scenarios may be able to manage growth in a more sustainable, equitable and arguably more politically acceptable way.

This thesis therefore contends that a wide range of tools or mechanisms should be available to planners and used to manage the environmental or natural resource impacts of urbanisation. As a consequence, a primary aim of the thesis is to examine the operation of various approaches to and mechanisms for urban growth management in North America, Europe and Australia, and determine how these might be adopted and utilised – or have been implemented – in the specific context of Sydney (and by inference NSW), as well as the scope for more general application of these tools. Related to this aim, the thesis focuses on an examination of the range of urban growth and natural resource management approaches utilised in recent years at both State and local government levels in NSW and presents a critical review of their operation.

## **1.5 Theoretical and conceptual framework**

Given the unique problems and challenges of managing growth on the rural-urban fringe, it is contended that many of the contemporary approaches to planning in fringe areas appear to be deficient or imperfect to meet these challenges. In the past there has been a tendency to simply extrapolate urban-derived development control models such as minimum allotment sizes into the fringe, which, for example, are likely to disregard established rural land systems.<sup>23</sup> “This observation suggests a different model is needed, perhaps one which introduces natural resource management precepts and has a reduced emphasis on traditional development control systems.”<sup>24</sup> Thus, an examination and reappraisal of the application of what might be broadly termed ‘regulatory theory’ is the essential theoretical framework of this thesis.

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<sup>23</sup> Houston, P., ‘Rural Planning’ (1990) 28(4) *Australian Planner* 5-7.

<sup>24</sup> Bunker, R. and Houston, P., ‘At and Beyond the Fringe: Planning Around the Australian City with Particular Reference to Adelaide’ (1992) 10(3) *Urban Policy and Research* 23-32.



Accordingly, this thesis seeks to identify a model of growth management for the peri-urban or rural-urban fringe in Australia, based on the adoption of three fundamental concepts or frameworks. First is the recognition of the importance of natural resource conservation and environmental protection as an essential characteristic, and objective, of growth management policy, particularly in the context of protecting these values at the juncture of urbanisation on the peri-urban fringe. This aspect of the conceptual framework of the thesis is considered in Chapter 2.

Second is the acknowledgement of the significant role of the notion of ‘property rights’ in land use planning and decision-making. With respect to this last point, it is submitted that property rights should not be merely seen as a factor to be tolerated or endured by decision-makers. Rather, this concept or view of rights accruing from tenure or interests in land is a tool which may be harnessed to ensure effective growth management policies and decisions that seek to achieve natural resource conservation and environmental protection objectives. A fuller examination of property rights, regulatory theory and smart regulation, and their application to growth management, is provided in Chapters 3 and 4.

The third element of the conceptual framework is the utilisation of ‘non-traditional’ or innovative approaches to growth management, based on concepts such as ‘smart regulation’,<sup>25</sup> market-based instruments, and integrated strategic planning and resource management. This is considered in part in Chapter 5, as well as other chapters of the thesis. Using this conceptual framework, a model of urban growth management mechanisms are derived and considered below (Table 1.1 and Figures 1.1 and 1.2 refer).

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<sup>25</sup> Gunningham, N. and Grabosky, P., *Smart regulation: designing environmental policy*, (Oxford, Oxford University Press, 1998).



## 1.6 Growth management mechanisms

A number of **general approaches** are available for managing growth in the context of natural resource conservation. These approaches may be broadly categorised as:

- o strategic planning and policy ('forward planning') – including bioregional planning, integrated resource management, land capability studies, landscape management/ planning and strategic spatial or metropolitan planning;
- o statutory/regulatory ('command and control') – including zoning, statutory planning, planning incentives, urban growth boundaries, specific resource-based legislation and right-to-farm legislation; and
- o market based and economic – including freehold acquisition, purchase or transfer of development rights, tradeable offsets, common law tools such as covenants and easements, financial incentives, and fiscal measures such as compensation and taxation.

Specific mechanisms used within each of these approaches may incorporate either controls or incentives, or a combination of both. For example, transferable development rights (TDR) is described as a market-based mechanism involving acquisition of development 'rights', yet may also operate in conjunction with a system of planning incentives within a regulatory context in the sense that a TDR scheme may be tied into statutory planning decisions on individual development proposals. Similarly a system of tradeable conservation credit or 'offsets' scheme may involve the purchase and transfer of environmental 'benefits', but also be rooted in a broader strategic approach, be enforced through the statutory planning system, and also involve planning bonuses and incentives. Thus, neat or strict categorisation of these mechanisms is not necessarily possible nor desirable – in the sense that it may not necessarily contribute to the practical effectiveness of these tools – and significant differences in categorisation is evident in the literature. However from an academic perspective such an analysis does assist in the understanding and appreciation of the tools, which helps in the identification of an appropriate suite of tools for specific situations.



Thus, the exercise of categorisation – that is, how the various mechanisms are perceived and grouped – is argued here to be an essential prerequisite exercise as it is indicative of the depth of understanding, at both practical and conceptual levels, of growth management mechanisms and strategy. A sound grasp of the conceptual framework of growth management instruments or mechanisms is necessary for the important practical tasks of identification, formulation, assessment and implementation of appropriate mechanisms and strategies and the consequent analysis and review of their effectiveness.

Selection and adoption of mechanisms may depend on political, legal and financial factors. For example, regulatory controls based on an array of planning policy and law, and other legal mechanisms such as right to farm legislation and special purpose legislation, may not be politically palatable due to strong stakeholder opposition to these types of controls. Legal constraints may exist to impede the adoption of planning incentives and related tools such as the transfer of development rights as a policy response to urban growth on the fringe. Similarly, financial constraints may restrict or preclude the consideration of tools involving the acquisition of land or the purchase of development rights as feasible options. Irrespective of which mechanisms are adopted, the main consideration is that they be consistent and equitable in their impact so as to maximise their effectiveness.

Thus, the following specific categorisation of land use planning, natural resource management and environmental protection policy tools and mechanisms is offered (refer *Table 1.1: Growth management approaches and mechanisms*). These are examined in some detail in this thesis. Chapter 2 discusses the significance of urban growth management and Chapter 4 considers in some depth the various growth management approaches and mechanisms. Chapters 5 to 8 inclusive describe and review at length the application and performance of these urban growth management approaches and tools primarily in the Sydney Region.



**Table 1.1: Growth management approaches and mechanisms**

<b>Approach</b>	<b>Mechanisms/tools</b>
Strategic planning and policy (‘Forward planning’)	Bioregional planning Integrated resource management Strategic spatial/metropolitan planning Land capability studies Landscape management and planning
Statutory/regulatory (‘Command and control’)	Statutory planning Land use zoning Planning incentives Urban growth boundaries Specific natural resource, environmental protection and nature conservation legislation Right-to-farm legislation
Market based and economic (‘Smart regulation’)	Land acquisition Purchase of development rights Transferable development rights Offsets Easements and covenants Financial incentives Compensation Taxation Planning incentives

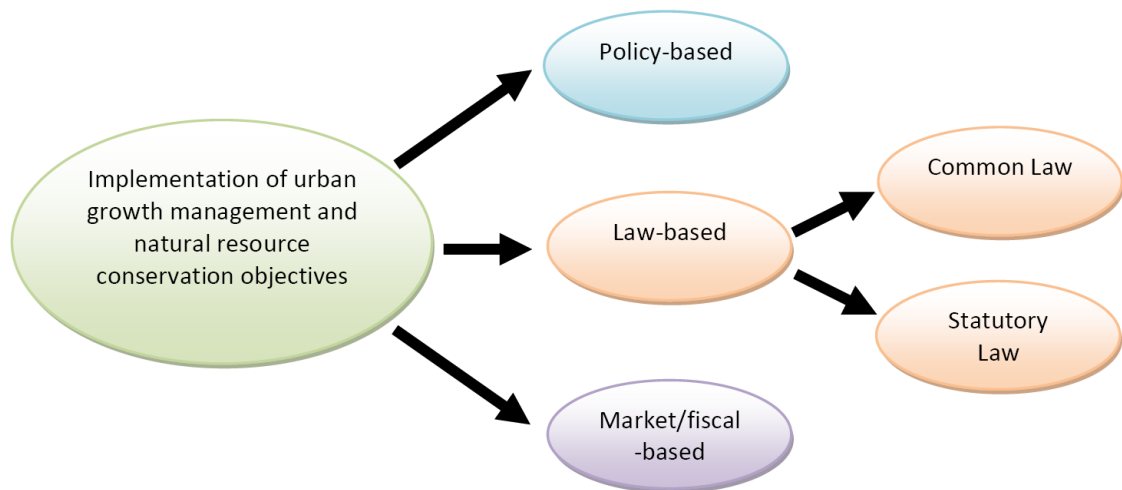
Further elaboration of this framework of general approaches and specific mechanisms/tools available to land use planning, natural resource management and environmental protection agencies to manage urban growth culminates in the formulation of a ‘*Model of the urban growth management and natural resource conservation system*’, as presented in *Figure 1.1* and *Figure 1.2*. Illustrated in this ‘model’ are the foundations or bases in terms of the general approaches available (*Figure 1.1: General approaches to the urban growth management and natural resource conservation system*), and an attempt to order the basic tools or mechanisms according to the potential degree of government ‘intervention’ in property rights



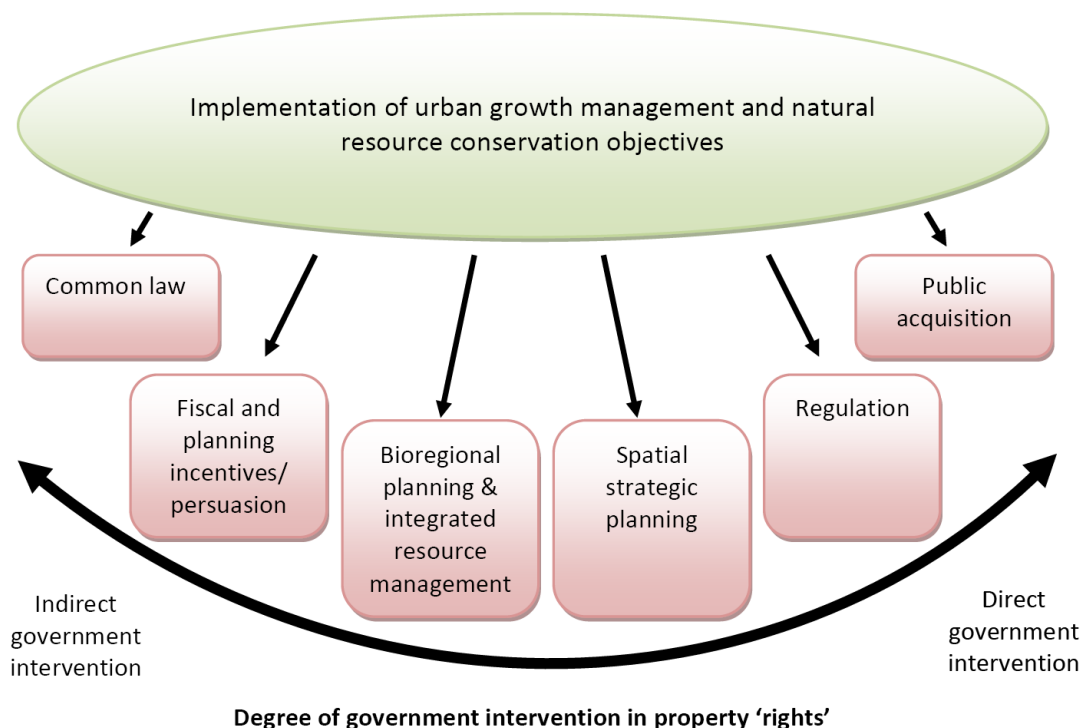
(Figure 1.2: Choice of instruments for urban growth management and natural resource conservation).

**Model of the urban growth management and natural resource conservation system**

**Figure 1.1: General approaches to the urban growth management and natural resource conservation system**



**Figure 1.2: Choice of instruments for urban growth management and natural resource conservation**





## **1.7 Methodology**

The methodological approach adopted for research for this thesis comprises several components. First is a consideration of the related academic literature from the applicable fields of legal and planning theory to construct the conceptual framework for the research. Second is an analysis of relevant international and Australian material, from both academic and official government sources, on the subject area of urban growth management and natural resource conservation approaches. The next three elements of the research methodology focus on the ‘original’ contribution of the thesis to the body of knowledge on the subject area. The first element involves the initial identification and review of the relevant government policies and schemes that are in place to manage urban growth in the context of environmental and natural resource protection. Significant reliance is then placed on primary qualitative research in the form of a number of substantial interviews conducted with a number of officers or office-holders in several government and non-government organisations. Attitudes, perceptions and issues in relation to various growth management tools are distilled through these interviews, with a view to ascertain their rationale, implementation and effectiveness. Further information on these interviews is provided below. Finally, information from both primary (i.e. interview) and secondary (i.e. investigation of published or publicly accessible material) original research sources are integrated to progress and complete the analysis of various growth management tools, programs and initiatives currently in place by State and local government organisations in the Sydney region and its environs.

### **1.7.1 Qualitative Research**

Qualitative research undertaken for the thesis comprises a series of interviews with local council officers (engaged in strategic planning), selected State government officers, and office-holders from other relevant government or non-government organisations. Ethics approval for this component of the thesis research was required by the School of Law, University of Wollongong. A form titled *Initial Application for Approval to Undertake Research Involving Human Participants* prepared by the



University of Wollongong and the Illawarra Area Health Service was lodged with the University's Human Research Ethics Committee (HREC) in November 2006. Attached to this application was a number of supporting documents – a participant information sheet, participant consent form, and the proposed interview questions. A copy of this documentation is attached (see *Appendix 'B'*). Conditional approval of the application (*Reference number HE06/39*) was granted and conveyed in a letter from HREC dated 13 December 2006. Several matters were required to be attended to in this conditional approval, and following their resolution an amended research approval was subsequently received from HREC by letter dated 22 January 2007.

A number of potential interviewees were then identified and selected, and initial contact made via email to determine whether they would be prepared to participate in the research. A copy of the email script used for initial contact of potential participants (which was one of the matters to be resolved in the conditional ethics approval) is also attached at *Appendix 'B'*. The large majority of potential participants contacted in this manner agreed to be interviewed, indicating that this approach was an effective way of maximising the participation rate in the research. Only two of the 17 organisations contacted declined to be interviewed – in both cases due to the reason that each person believed that they were not competent to respond and contribute to the research.

Organisations were selected for this research on the basis of their functions and responsibilities in State and local government planning and natural resource management, particularly in a peri-urban context in NSW. Individuals to be approached for interview were in turn selected on the basis of their roles within these organisations. A list of the participating organisations and officers in this research is provided in Table 1.2. In total, 21 officers and office-holders from 15 State and local government organisations were interviewed for this thesis.



**Table 1.2: List of Participating Organisations and Officers/Officer-holders**

<b>Organisation</b>	<b>Contact Name(s) and Position(s)</b>	<b>Date of Interview</b>
Department of Natural Resources  Nature Conservation Trust of NSW	Tom Grosskopf Director, Vegetation and Land Management Board Member, Nature Conservation Trust of NSW	28/02/2007
Hornsby Shire Council	James Farrington Manager, Town Planning Services Planning Division Diane Campbell Biodiversity Coordinator Bushland and Biodiversity Management Team	02/03/2007  26/03/2007
Baulkham Hills Shire Council	Rebecca Johnston Project Manager, Forward Planning	05/03/2007
Sydney Catchment Authority	John Whitehouse Board Member, Sydney Catchment Authority	21/03/2007
Penrith City Council	Ruth Goldsmith Local Planning Manager Elizabeth Hanlon  Tanya Jackson  Terry Agar	04/04/2007 04/04/2007 04/04/2007 04/04/2007
Shoalhaven City Council	Gordon Clark Strategic Planning Manager	13/04/2007
Hawkesbury Council	Rachel Cumming Senior Strategic Planner	20/04/2007
Camden Council	Sue Morris Director Development and Environment	23/05/2007
Department of Primary Industry	David Mason Leader, Urban Agriculture Andrew Docking Resource Management Officer	25/06/2007 25/06/2007
Growth Centres Commission	Bruce Colman Precinct Project Manager – Oran Park and Turner Road	22/07/2007
Western Sydney Regional Organisation of Councils (WSROC)	Sharon Fingland Assistant Director WSROC	13/08/2007



<b>Organisation</b>	<b>Contact Name(s) and Position(s)</b>	<b>Date of Interview</b>
Department of Planning	Don Geering	03/08/2007
	Formerly Department of Planning Andrew Watson	16/08/2007
	Regional Planning Coordinator, Western Sydney Phil Leijten Acting Manager, Planning Reform	19/12/2007
Wingecarribee Council	Mark Pepping Manager, Strategic Planning	17/08/2007
Department of Environment and Climate Change	Ray Fowke Planning and Aboriginal Heritage Section, Metropolitan Branch	20/08/2007

While each of the interviewees addressed the common research questions prepared for approval by the HREC, they also provided comment on a much wider range of relevant issues. The basic questions each of the interviewees was asked were:

<b>Common Interview Questions:</b>	
1.	What policies or controls does your organisation have in place to manage urban growth?  For example: Regulatory, zoning Strategic/bioregional Acquisition 'Smart regulation' and market-based
2.	Do these policies and controls also relate to the conservation of specific natural resources such as biodiversity, open space, water quality and agricultural land?
3.	How long have these been in place? How are they implemented?
4.	Have they been effective? Is there any data on the utilization of these policies and controls available?
5.	What is your view of the various approaches and tools available to manage urban growth in general?
6.	What do you think can be done in terms of appropriate policy to manage urban growth in Sydney? Specifically, what planning tools or mechanisms could be used?



### 1.7.2 Utilisation of participant interviews

All interviews with the participants were recorded and subsequently transcribed, so that an accurate record of responses and comments was produced. These transcripts are available as a separate volume to this thesis, for purposes of verification of statements attributed to interviewees as part of the research (refer *Appendix 'F': Signed interviewee consent forms and transcripts of interviews conducted for thesis*). Interviews varied in duration from between 45 minutes to just over two hours, and all interviewees consented to their comments being incorporated into the thesis research documentation. Officers and office-holders interviewed for this thesis proved to be an invaluable source of insight and commentary on the research topic, and contributed significantly to the investigation undertaken for this thesis. In particular, the analysis presented in Chapters 5, 6, 7 and 8 – which consider the Sydney region case study – draws significantly on primary source material from the interviewees, and documentation they referred to during the interviews.<sup>26</sup>

## 1.8 Study outcomes

The main outcome of this thesis is the production of a rational approach to urban growth management for the extensive geographical region described here as the rural-urban fringe of Sydney. This approach to Sydney's growth should be implemented by public policy which recognises the value of the region's natural resources and biophysical environment, both in their own right and for the 'quality of life' of the people of NSW. This policy direction should, it is contended, seek to conserve and protect these assets as a primary aim of metropolitan/regional planning strategy in this State. To achieve this objective, a range of growth management tools should be considered and implemented by government. The approaches and tools identified in the thesis do, it is contended, have the potential for wider national and international

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<sup>26</sup> Participants for interviews were selected in part on the basis of the longevity of tenure of employment with their respective organisations. This was seen as desirable to ensure the veracity and quality of their responses. Interviews were conducted throughout 2007 (the last was in mid-December 2007) and transcribed during 2008. The thesis was submitted for examination in December 2011. These factors, plus the fact that the interviews were of some length, consistency and rigour, were designed to ensure that respondents were clear and certain – indeed to extent humanly possible, immutable – in their responses.



application in the management of urban growth that seeks to be more environmentally responsible and fiscally attractive to governments, landowners and developers. Simply, an outcome of this thesis is the identification of a range of public policy responses designed to achieve a more sustainable and liveable city, with a particular focus on the Greater Sydney Metropolitan Area and its fringe.

## **1.9 Themes and structure**

The overarching theme of this thesis is one of managing the impacts of human activity – particularly the growth of cities or urbanisation – in a way which minimises environmental impacts and protects natural resources. Implicit here is the identification of broad approaches and specific mechanisms which manage urban growth on the fringe of cities and towns in a way that protects the existing environmental and resource attributes of urban and rural/non-urban areas. Key environmental and natural resource attributes focussed on in this thesis include biodiversity and habitat, water and agricultural land. Fundamental here is the view that a suite of tools from a range of approaches should be implemented to ensure achievement of the task of seeking compatibility between urban growth management on the one hand, and environmental and natural resource protection on the other. After all, urban growth could be ‘managed’ in such a way that is not totally antagonistic to the promotion of environmental and natural resource values. Progress to the achievement of environmentally and natural resource sympathetic urban growth through the adoption of appropriate, effective growth management tools, is thus a further key theme of this thesis.

The thesis is divided into nine chapters. Chapters 1 – 3 provide the context for the thesis; Chapter 4 considers urban growth management approaches and tools in detail; Chapters 5 – 8 deal with the Sydney region case study; and Chapter 9 provides a critique of the literature and research findings to offer suggestions for the integration of natural resource management and environmental protection into planning for Sydney’s growth. Content of the succeeding chapters of the thesis is briefly outlined below.



Chapter 2 – Growth management, environmental protection and natural resource conservation – provides a general literature review. The chapter expands on a number of key concepts – growth management and the fringe; natural resources and the environment; sustainable cities; and an introduction to approaches to growth management. Chapter 3 examines the literature dealing with land tenure, private property, the concept of property ‘rights’ and introduces some regulatory theory. A focus on property ‘rights’ is included in this chapter as, it is submitted, this is a distinctive factor that needs to be considered in growth management (and broader land use planning) policies. This chapter explores and analyses the relationship between property rights and planning regulation, and the problems that may arise to prevent the successful implementation of planning policy. Specifically, the chapter looks at aspects of ‘traditional’ planning regulation, takings, compensation and betterment, and smart regulation.

A number of solutions may be considered to address the problems of managing the natural resource and environmental impacts of urbanisation on the fringe. Chapter 4 considers in some detail the various growth management approaches and mechanisms. This chapter is divided into three parts, with each part discussing one of the broad approaches to growth management in the context of natural resource conservation identified above. Material is presented primarily from the Australian, North American and European contexts. The main criterion for the selection of material is their relevance in terms of application to the Australian, and particularly the NSW and Sydney contexts. The North American and European approaches to growth management do vary somewhat from that used in the past in Australia, and do offer alternative models that need to be considered for application in Australia. The first part of Chapter 4 examines ‘forward’ or strategic planning approaches to growth management and natural resource conservation. These include bioregional planning and integrated resource management, strategic/metropolitan planning, land capability studies, and landscape management and planning. The second part of the chapter analyses statutory or regulatory approaches to growth management and natural resource conservation. Included here are development control, land use zoning, urban growth boundaries, specific natural resource, environmental protection and nature conservation legislation, and right-to-farm legislation. Collectively, many of the tools reviewed in this chapter represent the more traditional ‘command and control’



approach to land conservation, protection and management. Finally, the chapter reviews market based or voluntary and economic approaches to growth management and natural resource conservation. Mechanisms discussed here comprise acquisition (including purchase of development rights), transferable development rights, offsets, easements and covenants, financial incentives, compensation, taxation and planning incentives. Collectively, many of the tools considered in this chapter have been described as ‘smart regulation’ in the literature.<sup>27</sup>

Chapters 5 to 8 inclusive examine the case study of Sydney in detail. In part, these chapters draw on the qualitative research undertaken for this thesis. The course or ‘history’ of growth management and spatial strategic/metropolitan planning in Sydney is reviewed in Chapter 5. This chapter seeks to explain how Sydney has grown and to provide critical reflective input into the future policy options and growth management approaches both for Sydney and other areas of NSW contending with urban growth impacts. Chapter 6 seeks to place the Sydney region – and specifically its fringe – in the context of its institutional framework and contemporary reform of the planning and natural resource systems. Considered here are the changes that have occurred to institutional arrangements – that is, which government agencies are responsible for land use planning, natural resource management and environmental protection in Sydney – and what integration, if any, exists between these agencies and their activities. The chapter also considers a number of recent reforms in NSW – to statutory land use planning, biodiversity conservation and catchment management – that affect Sydney.

Chapter 7 examines in detail recent State Government approaches to urban growth management in Sydney. Considered in this chapter are contemporary policies and tools related to metropolitan and regional strategic planning, biodiversity conservation, statutory land use planning, acquisition and catchment management. Covered in this chapter are biodiversity policies such as biobanking and biodiversity certification, recent land use zoning provisions introduced in NSW, and key investigations such as the Sydney Water (McClelland) Inquiry, as well as the programs and activities of bodies such as the Sydney Catchment Authority. Recent

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<sup>27</sup> Gunningham and Grabosky, above n 25.



approaches and tools for urban growth management by local councils on the peri-urban fringe of Sydney are reviewed in Chapter 8. While many of these approaches involve the implementation of State-level policies or legislation, there are several growth management initiatives specific to local councils which warrant closer examination.

Chapter 9 presents the findings and recommendations of the thesis. Provided here is a summary of the thesis, a critique of the material presented and identification of relevant conclusions. A focus of this chapter is the critical review of past and existing growth management and natural resource conservation policies in NSW. The chapter also suggests a way forward, in terms of the application of growth management tools to environmental management and natural resource conservation in both the Sydney region and more broadly in the rest of NSW.

## **1.10 Conclusion**

The significance of this thesis lies in the contention that it deals with both an original area of investigation and a relevant – and indeed problematic – contemporary environmental planning issue. Its originality lies in the fact that the thesis seeks to examine the interface of urban growth management and natural resource conservation/environmental protection from the perspective of the appropriate tools or mechanisms to be used in a planning policy and statutory response to these problems. Added relevance of the thesis is provided by the case study to which it is applied, the Sydney region and its environs, where the management of the various aspects of urban growth – including environmental protection and the maintenance of natural resources – is particularly challenging. Particular focus is devoted to the significance and geographic extent of biodiversity, agricultural land and water catchments around Sydney and, by implication the consequential importance of appropriately managing urbanisation so as to achieve a more sustainable city. Application of the approaches and tools identified in this thesis are relevant for the realisation of more sustainable urbanisation generally.



Further specific areas where it is believed that the thesis makes a contribution are in relation to:

- Consideration of the range of broad approaches for the implementation of planning policy and the specific tools or mechanisms available within these approaches.
- Identification of some of the more innovative tools used in existing government schemes or programs that are available to address the environmental and natural resource aspects of managing urban growth management.
- Investigation of the problems associated with the implementation of these tools, and a preliminary assessment of their likely effectiveness of application by State and local government in the Sydney region.
- Recommendation of an appropriate array of policy responses to the issue of managing urban growth in the Sydney region in a way that is compatible with the maintenance of the environmental quality and natural resource conservation – and hence the sustainability and liveability – of Sydney.

The chapter began with the case study of the demise of the proposed ‘green zones’ – the Landscape and Rural Lifestyle Zone – which was seen as an integral component of the contemporary urbanisation of the fringe of Sydney. Demise of the green zones meant the loss of land with biodiversity, landscape and productive agricultural value. This policy announcement of the NSW Government was seen as necessary in the face of landowner demands in relation to property rights and the belief that each land use decision on the fringe is effectively limited to one of *either development or conservation*. This outcome is usual in a ‘command and control’ regulatory planning system where, as was the situation with the situation of the green zones, development is either approved or rejected, with the consequence that land is either developed or not – with consequent financial implications to the property owner.

This thesis seeks to argue that such an outcome is not inevitable – that it is possible to achieve *both development and conservation* through the choice of appropriate planning approaches and tools. For example, through the adoption of mechanisms to be explored in this thesis such as transferrable development rights, biodiversity offsets and biodiversity certification schemes, retaining non-urban land need not be seen as diminishing its economic value to landowners. Such an approach can deflect the



pressure for urbanisation arising from expectations of windfall gains from development. Indeed, the enhanced economic value accruing to preserved non-urban land through the operation of such schemes suggests that landowners can still benefit financially precisely because their land is not developed. In this regard, by utilising tools beyond command regulation, non-urban land can become an integral, essential and economically valuable component of the sustainable growth management of cities such as Sydney.



# 2

## GROWTH MANAGEMENT, NATURAL RESOURCE CONSERVATION AND ENVIRONMENTAL PROTECTION

### 2.1 Introduction

This chapter introduces and reflects on a number of key concepts and matters that are fundamental to this thesis. These are the concepts of natural resources and the environment; ecologically sustainable development and sustainable cities; the notions of growth management and the rural-urban fringe; the significance and problems of the fringe, such as the ‘impermanence syndrome’; and an overview of the approaches to growth management, specifically with respect to solutions for a sustainable fringe in terms of natural resource conservation and environmental protection.

It should be recognised from the outset that there are many constituent parts of the natural environment and numerous natural resource components.<sup>1</sup> This chapter concentrates on several aspects of these – biodiversity, habitat, water and agricultural land – which relate more closely to contemporary land use planning and urban growth management in Australia. Several significant themes and trends emerge from this analysis of this field of planning:

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<sup>1</sup> See, for example: Meadows, D., Randers, J. and Meadows, *Limits to Growth: The 30 Year Update*, (Chelsea Green Publishing Company, White River Junction, Vermont, 2004); Smith, G. and Scott, J., *Living Cities: An Urban Myth?* (Rosenberg Publishing, Dural, NSW, 2006).



- the need for integration of natural resources and environmental management considerations into planning decision-making and planning systems;
- the importance of the principles of ecologically sustainable development in contemporary Australian planning, particularly in the context of sustainable cities;
- natural resource management in rural and regional contexts; and
- the governance or administration of land use planning, natural resource and environmental systems and sectors.

This chapter examines the first three of these themes. The fourth – the governance or administration of natural resource, environmental and land use planning systems in the NSW context – is discussed in Chapter 6.

## 2.2 Natural resources, the environment and ESD

Underpinning much of the discussion in this thesis of effective urban growth management are the terms *natural resource conservation* and *environmental protection*. By inference, some key concepts derive from these terms. These include the terms ‘natural resource’, ‘natural resource management’, ‘environment’ and ‘environmental management’. Elaborated here is what is understood by these concepts from a ‘conservation’ or ‘protective’ perspective, and how they relate to urban growth management.

The concept of *environment* is usually associated with the natural or biophysical environment, which consists of land, water, flora and fauna, air, and climate. But humans are also part of the environment, so economic and social factors are also relevant to this definition, helping to create the ‘built environment’. Indeed, the environment has been defined as “a concept which includes all aspects of the surroundings of humanity, affecting individuals and social groupings”.<sup>2</sup> Thus “the environment is by no means in its natural state when questions about its use arise ... [and so] in practice it is impossible to draw a dividing line between ‘natural’ and

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<sup>2</sup> Gilpin, A, *An Australian Dictionary of Environment and Planning*, (Oxford University Press, Melbourne, 1990).



‘developed’.”<sup>3</sup> Although this thesis recognises that ‘environment’ is a very broad term, (as the definitions in environmental law below demonstrate), it is primarily concerned with the *natural or biophysical environment*, and its interplay with the built or urban environment.<sup>4</sup>

Environmental laws in Australia generally contain a definition of the term *environment*. As can be seen below, these definitions suggest how broadly the term is understood in this country. Definitions of ‘environment’ under Australian environmental statutes include:

‘Environment’ includes (a) ecosystems and their constituent parts, including people and communities; (b) natural and physical resources; (c) the qualities and characters of locations, places and areas; (d) heritage values of places; and (e) the social, economic and cultural aspects of ecosystems, natural and physical resources, and locations, places and areas.<sup>5</sup>

‘Environment’ includes all aspects of the surroundings of humans, whether affecting any human as an individual or in his or her social groupings.<sup>6</sup>

‘Environment’ means land, air, water, organisms and ecosystems, and includes (a) human-made or modified structures or areas; and (b) the amenity values of an area.<sup>7</sup>

‘Environment’ means the physical factors of the surroundings of human beings including the land, waters, atmosphere, climate, sound, odours, tastes, the biological factors of animals and plants and the social factor of aesthetics.<sup>8</sup>

‘Environment includes (a) ecosystems and their constituent parts including people and communities; and (b) all natural and physical resources; and (c) those qualities and characteristics of locations, places and areas, however large or small, that contribute to their biological diversity and integrity, intrinsic attributed scientific value or interest, amenity, harmony, and sense of community; and (d) the social, economic, aesthetic and cultural conditions affecting the matters in paragraphs (a), (b) and (c) or affected by those matters.<sup>9</sup>

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<sup>3</sup> Farrier, D and Stein, P, *The Environmental Law Handbook*, (4<sup>th</sup> edn., Redfern Legal Centre Publishing, Sydney, 2006).

<sup>4</sup> Bridgman, H., Warner, R. and Dodson, J., *Urban Biophysical Environments*, (Oxford University Press Australia, Melbourne, 1995).

<sup>5</sup> *Environment Protection and Biodiversity Conservation Act 1999* (Cth), s 528

<sup>6</sup> *Environmental Planning and Assessment Act 1979* (NSW), s 4

<sup>7</sup> *Environment Protection Act 1993* (SA), s 3

<sup>8</sup> *Environment Protection Act 1970* (Vic), s 4

<sup>9</sup> *Integrated Planning Act 1997* (Qld), Sch 10



As defined by legislation therefore, ‘environment’ is an unavoidably anthropocentric term, generally referring to human surroundings or includes humans as part of the environment. In comparison, terms such as ‘ecosystem’ or ‘ecological community’ are usually used to refer to the environments of other species. An ecosystem is a dynamic complex of plant, animal and micro-organistic communities and their non-living environment or surroundings, all interacting as a functional unit.<sup>10</sup> An ecological community is an assembly of native species that inhabits a particular area in nature.<sup>11</sup>

Another key concept in this discussion is *resource*. An example of a definition of ‘resource’ is that contained in the *Resource Assessment Commission Act 1989* (Cth): “a biological, mineral or other component, whether natural or not, of the environment (other than a human being), and includes a permanent or temporary combination or association of such components”.<sup>12</sup> Generally the term ‘resource’ “usually connotes either a stock or reserve that can be made available when necessary or a means of supplying a want or deficiency.”<sup>13</sup> A ‘natural resource’ may be simply described as a resource having a real or physical existence or, more functionally, as “the resources derived from the land or the sea.”<sup>14</sup> Typically, a resource incorporates several characteristics: “a resource is utilitarian and anthropocentric – a thing is not a resource unless it can be used; a resource is used to fulfil human needs – for food, shelter, warmth, transportation and gratification; and it must be placed in a social, economic, cultural, political, administrative and technological context”.<sup>15</sup> There is a very obvious economic perspective to the concept of ‘resource’.<sup>16</sup> From these considerations can be derived a definition of *resource management*: ‘the set of technical, economic and managerial practices which uses resources for the purpose of satisfying people’s utilitarian needs and wants under prevailing socio-economic and technological

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<sup>10</sup> *Environment Protection and Biodiversity Conservation Act 1999* (Cth), s 528

<sup>11</sup> *Environment Protection and Biodiversity Conservation Act 1999* (Cth), s 528

<sup>12</sup> *Resource Assessment Act 1989* (Cth) s 3.

<sup>13</sup> Fisher, D., *Natural Resources Law in Australia*, (The Law Book Co., North Ryde, NSW, 1987), p. 3.

<sup>14</sup> Downes, R., ‘Goals for Resource Management’ in Sindén, J. (ed.), *Natural Resources of Australia* (Australian and New Zealand Association for the Advancement of Science, Sydney, 1974), p. 21.

<sup>15</sup> Conacher, A. and Conacher, J. (2000) *Environmental Planning and Management in Australia*, Oxford University Press, Melbourne, p 3.

<sup>16</sup> Fisher, above n 13, p. 3.



conditions'.<sup>17</sup> It should be pointed out however, that resource 'use' is increasingly seen more broadly – for example in the wider context of ecosystem services – and not just as a stock or reserve of biological or mineral components of the environment.<sup>18</sup>

On the other hand, *environmental management* may be argued to have a broader objective. It seeks to understand the connections or links between various resources and their environments, in a way that maximises beneficial links and minimises adverse ones. As is the case with resource management, it is possible to detect a social or human-centred dimension to environmental management. Whereas environmental management involves broad, multipurpose considerations and interactions, resource management tends to be more narrowly focused. However, the *Natural Resources Commission Act 2003* (NSW) for example, attempts to overcome this narrower focus, by including a wide range of matters in its definition of natural resource management, when it states that

... "natural resource management" extends to the following matters relating to the management of natural resources:

- (a) water,
- (b) native vegetation,
- (c) salinity,
- (d) soil,
- (e) biodiversity,
- (f) coastal protection,
- (g) marine environment,
- (h) forestry,
- (i) any other matters concerning natural resources prescribed by the regulations.<sup>19</sup>

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<sup>17</sup> Conacher, A. (1978) 'Resources and environmental management: Some fundamental concepts and definitions', 9(12) *Search* 437 at 438.

<sup>18</sup> The *Draft New South Wales Biodiversity Strategy 2010-2015* describes ecosystem services in the following terms:

"Biodiversity contributes to providing the ecosystem services that form our natural capital: fresh water, clean air, soil fertility and biological pest control. It is fundamental to our physical, social, cultural and economic wellbeing as well as having its own intrinsic worth. Ecosystem services are produced by the functions that occur in healthy ecosystems. These can be divided into four groups:

1. provisioning services (e.g. food, fibre, fuel and fresh water)
2. cultural services (e.g. spiritual values, recreation and aesthetic values, knowledge systems)
3. supporting services (e.g. primary production, habitat provision, nutrient recycling, atmospheric oxygen production, soil formation and retention)
4. regulating services (e.g. pollination, seed dispersal, climate regulation, pest and disease regulation, water purification)."

Department of Environment, Climate Change and Water *Draft New South Wales Biodiversity Strategy 2010-2015*, (DECCW, Sydney, November 2010), p. 3,

<http://www.environment.nsw.gov.au/resources/biodiversity/strategy/10821DraftBioStrat.pdf>, viewed 25 April 2011.



Two of the statutory definitions of ‘environment’ described above – the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* and the Queensland *Integrated Planning Act 1997* – specifically mention ‘natural and physical resources’ as part of their definitions of ‘environment’. This suggests that ‘environment’ is a more encompassing and broader term than ‘natural resource’, or alternatively, that natural resources are a component or subset of the environment. Yet, while in an academic or strictly legal sense, the case may be put that there is a fine distinction between ‘resource management’ and ‘environmental management’, arguably in practice this distinction is breaking down – for example biodiversity has come to be recognised as a resource, as indicated for example in its inclusion in the definition of natural resource in the NSW *Natural Resources Act 2003* above. This scenario of the practical convergence of the fields of natural resource management and environmental management is crucial within both the specific context of this thesis and planning generally, as it now presents a challenge for land use planners who are now expected to be natural resource managers as well.<sup>20</sup> Rising to this challenge is problematic, not the least because of the differing traditions of land use planning, with its origins in old-style British ‘town and country planning’, and natural resource management, which is rooted in more recent fields of ecology, environmental science and other sciences such as biology.

Concluding this consideration of natural resource management and environmental management, while both concepts possess a commonality of emphasis on an anthropocentric or human-centred dimension, it is the more specifically ecocentric aspects of these two terms that is favoured in this thesis. To elaborate, the conservation aspect of natural resource management is emphasised, and so *natural resource conservation* is the preferred conceptualisation and expression of this term. Similarly, the protective aspect of environmental management is also given weight in this thesis, so that the more specific notion of *environmental protection* is the preferred interpretation of this term. Thus, in the main, the more precise concepts of

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<sup>19</sup> *Natural Resources Commission Act 2003* (NSW) s 5.

<sup>20</sup> See for example: Kelly, A. ‘The role of local planners in nature conservation’ (1996) May-June *New Planner* 22; Cardew, R. ‘Two cultures: common purpose’ (1999) 36(3) *Australian Planner* 134; Farrier, D. ‘Fragmented Law in Fragmented Landscapes: the Slow Evolution of Integrated Natural resource Management Legislation in NSW’ (2002) 19(2) *Environmental and Planning Law Journal* 89.



‘natural resource conservation’ and ‘environmental protection’ are assumed and so employed in the thesis.

A diverse range of management tools are available to assist planners with natural resource conservation and environmental protection, and with incorporating environmental and natural resource considerations into planning and land-use decisions (see *Table 2.1: The environmental and resource management toolkit*). Some of these tools are used at the project assessment or ‘tactical’ level (that is, in relation to a specific development proposal), whereas others are used for forward or ‘strategic’ planning (that is, planning alternative land uses in advance of specific development proposals). Some inform decision-making at both or either the project assessment or strategic planning levels, forming a category of tools used for a combination of strategic planning and project assessment. Some of these tools – for example, bioregionalism, catchment management and integrated resource management – are considered in more detail in Chapter 4.

**Table 2.1: The environmental and resource management toolkit**

Project assessment	Planning and assessment	Strategic planning
<ul style="list-style-type: none"> <li>• Environmental impact assessment (EIA)</li> <li>• Cost–benefit analysis</li> <li>• Economic impact assessment</li> <li>• Social impact assessment</li> <li>• Species impact assessment</li> <li>• Energy analysis</li> <li>• Environmental health impact assessment</li> </ul>	<ul style="list-style-type: none"> <li>• Environmental management systems</li> <li>• Life-cycle assessment</li> <li>• Integrated impact assessment</li> <li>• Cumulative impact assessment</li> <li>• Risk analysis</li> </ul>	<ul style="list-style-type: none"> <li>• State of the environment reporting</li> <li>• Technology assessment</li> <li>• Strategic environmental assessment</li> <li>• Environmental quality indicators (for example, catchment indicators)</li> <li>• Bioregionalism and integrated resource management</li> <li>• Regional carrying capacity studies (for example, land capability studies and rural land evaluation)</li> <li>• Environmental audits</li> </ul>



The concept which has largely directed debate and policy in relation to natural resource conservation and environmental protection is *ecologically sustainable development* (ESD). ‘Sustainable development’ is not a new term – rather it retains its novelty because people are still reluctant to embrace it. It has its origins in the 1972 United Nations Conference on the Human Environment at Stockholm. The integration of development and the environment was considered further in 1980, when the International Union for the Conservation of Nature and Natural Resources (IUCN) released its World Conservation Strategy.<sup>21</sup> In 1983, the UN General Assembly established an independent body called the World Commission on Environment and Development (WCED). In 1987, WCED published *Our Common Future* (the ‘Bruntland Report’), which defined sustainable development as “development that meets the need of the present without compromising the ability of future generations to meet their own needs.”<sup>22</sup> The WCED explained its rationale as follows:

Many present development trends leave increasing numbers of people poor and vulnerable, while at the same time degrading the environment. How can such development serve next century’s world of twice as many people relying on the same environment? ... We came to see that a new development path was required, one that sustained human progress not just in a few places for a few years, but for the entire planet into the distant future. Thus ‘sustainable development’ becomes a goal not just for the ‘developing’ nations, but for industrial ones as well.<sup>23</sup>

In Australia, this rationale was quickly adopted by the Commonwealth Government (in 1990), which defines ESD in the following terms:

Ecologically sustainable development means using, conserving and enhancing the community’s resources so that ecological processes, on which life depends, are maintained and the total quality of life, now and in the future, can be increased.<sup>24</sup>

Commonwealth and State governments in Australia have subsequently expanded this definition by setting out the principles of ecologically sustainable development in the 1992 *Intergovernmental Agreement on the Environment*. These are:

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<sup>21</sup> Mitchell, P. ‘Sustainable development’, (1999) 36 *Australian Planner* 150.

<sup>22</sup> World Commission on Environment and Development (WCED), *Our Common Future*, (Oxford University Press, Melbourne, 1990), p. 87.

<sup>23</sup> Ibid, p. 4.

<sup>24</sup> Commonwealth of Australia, *Ecologically Sustainable Development: A Commonwealth Discussion Paper*, (AGPS, Canberra, 1990), preface.



- the precautionary principle
- intergenerational equity
- conservation of biological diversity and ecological integrity
- improved valuation, pricing and incentive mechanisms<sup>25</sup>

These principles underpin the case argued in this thesis for sustainable urban growth management. In particular, the precautionary principle has quickly assumed special prominence in public policy. Writing in 1997, Deville and Harding noted that “[a]lmost all recent international treaties that relate to protection of the environment, include the precautionary principle ... Many of these influence policy and legislation within Australia.”<sup>26</sup> Thus subsequent Commonwealth legislation in this field, the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), incorporated the precautionary principle, which it defined as in the following terms:

The precautionary principle is that lack of full scientific certainty should not be used as a reason for postponing a measure to prevent degradation of the environment where there are threats of serious or irreversible environmental damage.<sup>27</sup>

Intergenerational equity – the notion that “the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations”<sup>28</sup> – is also an essential component of sustainable urban growth management. This concept has also found statutory expression, where the EPBC Act for example, refers to the ‘ecologically sustainable use’ of natural resources. Here this term denotes the use of “natural resources within their capacity to sustain natural processes while maintaining the life-support systems of nature and ensuring that the benefit of the use to the present generation does not diminish the potential to meet the needs and aspirations of future generations.”<sup>29</sup>

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<sup>25</sup> Australia, *Intergovernmental Agreement on the Environment*, (s.n., Canberra, 1992), sourced through Department of Sustainability, Environment, Water, Population and Communities, <http://www.environment.gov.au/about/esd/publications/igae/index.html>, viewed 22 April 2011.

<sup>26</sup> Deville, A. and Harding, R., *Applying the Precautionary Principle*, (Federation Press, Sydney, 1997), p. 16.

<sup>27</sup> *Environment Protection and Biodiversity Conservation Act 1999* (Cth), s 341(2).

<sup>28</sup> Australia, above n 25.

<sup>29</sup> *Environment Protection and Biodiversity Conservation Act 1999* (Cth), s 528.



Conservation of biodiversity also underpins ESD in Australia. It is not surprising to find that ESD, biodiversity conservation and habitat protection have become important planning responsibilities and functions.<sup>30</sup> Indeed, Fallding maintains that planners have a pivotal role in biodiversity conservation,<sup>31</sup> although Cardew argues the case for more collaboration between planners and physical scientists.<sup>32</sup> To be effective, biodiversity conservation must also extend beyond protected lands under public ownership, and become more widespread on privately-owned land.<sup>33</sup> ESD in general – and biodiversity conservation on private lands in particular – cannot be achieved by traditional planning approaches that focus on development approvals or that emphasise regulatory means alone. A variety of approaches (for example, bioregionalism, indigenous and private protected areas, and private wildlife sanctuaries) and mechanisms (for example, voluntary and binding conservation agreements, covenants, revolving funds and financial incentives) must also be considered and used where appropriate.<sup>34</sup>

The implications of these sustainability principles for planning are clear, and they have been recognised at the national level. For example, the sustainability implications of increasing urbanisation in Australia brought about an inquiry into sustainable cities. In its August 2005 report, *Sustainable Cities*, the House of Representatives Standing Committee on Environment and Heritage stated that:

Australian cities are facing a number of crucial issues. Water shortages, congested transport, and demands placed on energy and urban development must be addressed.<sup>35</sup>

The report reflected the Commonwealth Government's recognition that it needed to assume a leadership role in managing the environmental and natural resource impacts

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<sup>30</sup> Jay, M. 'Planners and the conservation of the biological heritage: Implications for Australia and New Zealand', (1999) 36 *Australian Planner* 42.

<sup>31</sup> Fallding, M. 'Planning for biodiversity', (2004) 41 *Australian Planner* 45.

<sup>32</sup> Cardew, R. 'Two cultures: common purpose' (1999) 36(3) *Australian Planner* 134

<sup>33</sup> Department of the Environment, Sport and Territories, *National Strategy for the Conservation of Australia's Biological Diversity*, (Canberra, Australian Government Department of the Environment and Heritage, 1996), p 11, <http://www.deh.gov.au/biodiversity/publications/strategy/cover.html>, viewed 22 June 2011.

<sup>34</sup> Figgis, P. *Conservation on Private Lands: The Australian Experience*, (IUCN, Gland, Switzerland and Cambridge, UK, 2004).

<sup>35</sup> Parliament of Australia House of Representatives Standing Committee on Environment and Heritage, *Sustainable Cities*, (Parliament of Australia, Canberra, 2005), p.1; <http://www.aph.gov.au/house/committee/enviro/cities/report.htm>, viewed 26 April 2011.



of urbanisation and improving the sustainability of Australian cities. The broad terms of reference of the Committee required it to report on issues and policies related to the development of sustainable cities to the year 2025, particularly:

- the environmental and social impacts of sprawling urban development;
- the major determinants of urban settlement patterns and desirable patterns of development for the growth of Australian cities;
- a ‘blueprint’ for ecologically sustainable patterns of settlement, with particular reference to eco-efficiency and equity in the provision of services and infrastructure;
- measures to reduce environmental, social and economic costs of continuing urban expansion; and
- mechanisms for the federal government to bring about urban development reform and promote ecologically sustainable patterns of settlement.

In its report the Committee considered that a sustainable Australian city should aim to:

- conserve bushland, significant heritage and urban green zones;
- ensure equitable access to, and efficient use of, energy, including renewable energy sources;
- establish an integrated sustainable water and stormwater management system addressing capture, consumption, treatment and re-use opportunities;
- manage and minimise domestic and industrial waste;
- develop sustainable transport networks, nodal complementarity and logistics;
- incorporate eco-efficiency principles into new buildings and housing; and
- provide urban plans that accommodate lifestyle, employment and business opportunities.<sup>36</sup>

A number of areas of investigation and recommended action in the Sustainable Cities report relate directly to the management of the growth of Australian cities, particularly at their urban-rural interface and their larger field of environmental and

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<sup>36</sup> Ibid, pp. 9-10.



resource impact (that is, their ‘ecological footprint’<sup>37</sup>). Hopefully this is a sign that the broader sustainability implications of unrestrained urbanisation are being recognised by government and that appropriate public policy responses are forthcoming. Continuation of the application of ESD principles to urban planning policy at the national level can be found in the report *State of Australian Cities 2010*, released by the Commonwealth Government through the Major Cities Unit of the Department of Infrastructure and Transport.<sup>38</sup> This report covered a wide range of topics: Australian cities in an international context; population and settlement; productivity of Australian cities; the sustainability of Australian cities; liveability of Australian cities; social inclusion and equity; and governance.

## **2.3 The fringe, natural resources and growth management**

Human land use and settlement impacts on natural resources and environmental quality are becoming more extensive and severe with the spread and intensification of human habitation. In much of the world, rural landscapes are undergoing an intensification of human land use, including urbanisation. Globally, this trend is exacerbated by the fact that growth in the number of households has out-paced population growth.<sup>39</sup> For example, in “many regions of the world, the primary pressure on local biodiversity will come from sprawl and impacts associated with increased numbers of households.”<sup>40</sup> The scattered, low-density development characteristic of sprawl occupies far more land than does multi-storied and higher-density urban centres,<sup>41</sup> and has significant effects on the land and other resources.

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<sup>37</sup> See, for example: Rees, W. and Wackernagel, M., ‘Urban ecological footprints: why cities cannot be sustainable and why they are a key to sustainability’, (1996) 16 *Environment Impact Review* 223; Rees, W., ‘Is ‘sustainable city’ an oxymoron?’ (1997) 2 *Local Environment* 303.

<sup>38</sup> Major Cities Unit, *State of Australian Cities 2010*, (Infrastructure Australia, Canberra, 2010), <http://www.infrastructure.gov.au/infrastructure/mcu/soac.aspx>, viewed 30 June 2011.

<sup>39</sup> Liu, J., Daily, G., Ehrlich, P. and Luck, G., ‘Effects of household dynamics on resource consumption and biodiversity’, (2003) 421 (6922) *Nature* 530.

<sup>40</sup> Gude, P., Hansen, A., Rasker, R. and Maxwell, B., ‘Rates and drivers of rural residential development in Greater Yellowstone’, (2006) 77 *Landscape and Urban Planning* 131 at 146.

<sup>41</sup> Bullard, R., Johnson, G. and Torres, A., *Sprawl city: race, politics, and planning in Atlanta*, (Island Press, Washington, DC, 2000).



Consequently, the area covered by urban and suburban growth often increases faster than population growth.<sup>42</sup>

One proposed paradigm of the drivers of human settlement in Western cities submits that settlement patterns have evolved with human technology.<sup>43</sup> It describes three stages characterised by: (1) natural resource constraints; (2) transportation expansion and (3) pursuit of natural amenities. According to this model, constraints on transportation required humans to settle close to the points of essential natural resources, most notably food crops. The advent of railroads and automobiles allowed resources to be transported from points of production, hence, settlement focused on transportation corridors. More recently, information technology has allowed goods and services to be shipped at very low costs and many people are choosing to live in rural locations distant from markets, but with high natural amenities (coastal, lake or mountains locations). Much of this latter growth has been concentrated in the area known as 'the fringe', defined here as constituting both more immediate 'rural-urban fringe' and more distant 'peri-urban' and 'exurban' locations.

The rural-urban fringe in Australia (and North America) has been characterised in the following terms:

It is an area of rapid population growth, has a wide variety of people living in and using it, has many different products and is a theatre where the complex and shifting interactions of natural resource management, rural production and metropolitan growth and influence are played out. It is also a shadow that moves outwards as the city spreads and extends its influence into its immediate hinterland ... The inner boundary of the fringe is generally defined as the boundary of the continuously built-up area of the metropolis pushing into it. The outer boundary is a loose one, blurred by the different functions of the fringe as a recreation area, place for living or visiting and a source of services, water, food and minerals ... The inner part of the fringe is the territory into which metropolitan expansion is taking place and can be subdivided as the 'edge'. The outer part is more rural in character and can be called the 'periphery'.<sup>44</sup>

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<sup>42</sup> Robinson, L., Newell, J., and Marzluff, J., 'Twenty-five years of sprawl in the Seattle region: growth management responses and implications for conservation', (2005) 71 *Landscape and Urban Planning*, 51 at 52.

<sup>43</sup> Gude, above n 40, p. 132.

<sup>44</sup> Bunker, R. and Holloway, D. 'More than fringe benefits' (2002) 39(2) *Australian Planner* 66 at 66.



To date, the areas of non-metropolitan Australia experiencing population growth have been spatially concentrated.<sup>45</sup> Conjecture for the most likely demographic outcome for non-metropolitan Australia is that those areas which will experience population growth are quite restricted in their distribution and are typified by one or more of a number of specific characteristics: proximity to large metropolitan areas; attractive scenic environment (for example, coastal, riverfront or mountainous areas); and areas of tourist potential.<sup>46</sup> The rural-urban fringe of large Australian cities score well in terms of this criteria of locational attraction, and thus have drawn a high proportion of non-metropolitan growth.

The area surrounding Australian capital cities and substantial regional centres is one of the distinctive characteristics of Australian urbanisation, although there is little acknowledgement of this in research and the literature. While there are common features with similar areas around North American cities, the Australian rural-urban fringe is more controlled and subject to planning policies.<sup>47</sup> Nonetheless, for some years now the rural-urban fringe of large cities in Australia has been “the theatre of a complex and dynamic drama where urban interests have become increasingly interwoven with and mediated by the need for careful management of the important natural resources of land, water, air, landscape, flora and fauna which are concentrated in these fringes.”<sup>48</sup>

‘Growth management’ may be described as “an explicit, ongoing program to shape or control growth through some combination of intervention techniques or policies”.<sup>49</sup> It has also been defined as essentially consisting of government actions “to guide the

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<sup>45</sup> Selwood, J., Curry, G. and Jones, R., ‘From the Turnaround to the Backlash: Tourism and Rural Change in the Shire of Denmark, Western Australia’ (1996) 14(3) *Urban Policy and Research*, 215 at 215.

<sup>46</sup> Hugo, G., ‘The turnaround in Australia; some observations from the 1991 census’ (1994) 25(1) *Australian Geographer*, 1 at 15.

<sup>47</sup> See for example: Daniels, T. *When City and Country Collide: Managing Growth on the Urban Fringe*, (Island Press, Washington, D.C., 1999); Furuseth, O. and Lapping, M. (eds.) *Contested Countryside: the Rural Urban Fringe in North America*, (Ashgate, Brookfield USA, 1999); Bunker, R. ‘In the shadow of the city: the fringe around the Australian metropolis in the 1950s’ (2002) 17 *Planning Perspectives*, 17, 61.

<sup>48</sup> Bunker, R. ‘In the shadow of the city: the fringe around the Australian metropolis in the 1950s’ (2002) 17 *Planning Perspectives*, 17, 61 at 61.

<sup>49</sup> Wiewel, W., Persky, J., and Sendzik, M., ‘Private benefits and public costs: policies to address urban sprawl’, (1999) 27 *Policy Studies Journal* 96, at 100.



location, quality, and timing of development.”<sup>50</sup> “The purpose of growth management is to provide greater certainty and predictability about where, when and how much development will occur in a community, region, or entire state.”<sup>51</sup> Thus, like planning generally, growth management is concerned with managing change. However, growth management can be distinguished from urban planning because the natural environment is more salient. Specifically, it is concerned with managing potential and actual land use change arising from the pressures of urbanisation, and managing the implications (social, economic and environmental) of that process. The focus of this thesis is the environmental and natural resource impacts of urban growth and how these can be managed.

Closely linked with the need perceived by many planners and environmentalists to manage urban growth is the issue of urban sprawl. While ‘urban sprawl’ can simply be defined as “a spreading, low-density automobile-dependent development pattern of housing, shopping centres and business parks that wastes land needlessly”,<sup>52</sup> it most commonly raises images of unchecked suburban growth and urban expansion, respectively, at and beyond the fringe of cities and towns. The latter form of urban expansion – beyond or around the fringe of major cities – has been conferred with the more specific descriptors of ‘exurban’ or ‘peri-urban’ development. Pertinently, “there appears to be general agreement that patterns of urbanisation have changed markedly in the past few decades.”<sup>53</sup> As a result of movement to exurban districts, through both greater rural-residential or ‘hobby farm’ development and growth of existing small townships, population has become dispersed across a greater area, generally at lower densities than found in suburban locations.

Numerous reasons have been given to explain the movement of population from metropolitan to non-metropolitan areas in Western nations over the past few decades,

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<sup>50</sup> Porter, D., *Managing Growth in America's Communities*, (Island Press, Washington, D.C., 1997), p. vii.

<sup>51</sup> Daniels, T., *When City and Country Collide: Managing Growth in the Metropolitan Fringe* (Island Press, Washington, D.C., 1999), p. 3.

<sup>52</sup> Pennsylvania 21st Century Environment Commission, *Report of the Pennsylvania 21st Century Environment Commission*, (PTCEC, Harrisburg, PA, 1998), p. 16.

<sup>53</sup> McKenzie, F., ‘Growth management or encouragement? A critical review of land use policies affecting Australia’s major exurban regions’, (1997) 15(2) *Urban Policy and Research* 83 at 84.



though several predominate.<sup>54</sup> First, is new transport and communication technology that “has allowed a further rapid extension of urban commuting fields into widely dispersed but still metropolitan-focussed economic networks.”<sup>55</sup> Second, the change in peoples’ values and lifestyle preferences has acted in favour of residences in rural or small-town environments and against the suburbs of large cities. Third, has been the structural change in modern western economies. One aspect of this change has been an increase in the proportion of footloose tertiary and quaternary employment relative to secondary employment which tended to concentrate in the larger cities, thus providing potential for relocation to other centres or outside the cities.

The spatial outcome of these changes has been an expanding *urban field* around major cities, a process identified by several urban researchers. The expanded urban field has been used to explain non-metropolitan growth in a study of population change in Canada.<sup>56</sup> Much of the so-called rural population growth identified in Canada was in fact ‘spillover’ from urban centres, affirming a trend claimed in Australia.<sup>57</sup> Indeed, the phenomenon of ‘counterurbanisation’ – that is the movement of population from urban to rural areas – specifically in the form of growth in rural areas around large cities, has been regarded as simply “discontinuous suburbanisation” to small towns and rural areas outside these major cities.<sup>58</sup> Similar findings in relation to urban fields extending into small towns and rural areas – measured by metropolitan commuting distances for example – have also been noted in the US.<sup>59</sup> This incursion into non-urban space is aptly described in terms which note that “over time, the recreational utility of destination zones is modified: metropolitan growth encroaches on the most accessible zone; new and improved transportation routes extend recreational pressures farther into the periphery and distort concentric patterns; excessive use and exploitation of natural resources in accessible locations displace participants to other

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<sup>54</sup> Hugo, G. and Smailes, P., ‘Urban-Rural Migration in Australia: a process view of the turnaround’, (1985) 1(1) *Journal of Rural Studies*, 11.

<sup>55</sup> Jackson, J. and O’Connor, K., ‘Beyond the Fringe: Social and Physical Planning Problems in Shires Adjacent to Melbourne’s Statistical Division’, (1993) 11(2) *Urban Policy and Research*, 81 at 81.

<sup>56</sup> Joseph, A., Keddie, P. and Smith, B., (1988) ‘Unravelling the Population Turnaround in Rural Canada’, (1988) 32(1) *Canadian Geographer*, 17.

<sup>57</sup> Hugo, G., ‘Australia: the spatial concentration of the turnaround’, in Champion, A. (ed.) *Counterurbanisation: the changing pace and nature of population deconcentration*, (Edward Arnold, London, 1989).

<sup>58</sup> Gordon, I., ‘Resurrecting Counter-Urbanisation: Housing Market Influences on Migration Fluctuations from London’, (1987) 3(4) *Built Environment* 212.

<sup>59</sup> Mitchelson, R. and Fisher, J., ‘Long-distance Commuting and Income Change in Upstate New York’, (1987) 63(1) *Economic Geography* 48.



locations; and new forms of transportation ... allow recreation to take place in pristine areas.’<sup>60</sup>

Urban sprawl involves the spread of population and associated infrastructure away from metropolitan areas and into surrounding lands. One definition describes urban sprawl as being “characterised as relatively low-density, noncontiguous, automobile dependent, residential and non-residential development that consumes relatively large amounts of farmland and natural areas.”<sup>61</sup> Instead of metropolitan city centres, suburban fringe areas bore the brunt of growth in most Australian, North American and British cities during the twentieth century. Yet sprawl is not just the spread of suburbs on the outskirts of cities. Suburbanisation is just one aspect of sprawl: as discussed above the spread of population into more distant rural areas – such as rural-residential development – is another form of sprawl, albeit it at lower densities. Importantly, the impacts are much the same – natural resources, open space, and traditional land uses such as farming have faced much pressure.<sup>62</sup>

However, the difficulty of the task of devising various alternative urban development strategies is compounded by the frustrating proclivity for commentators in this field to diametrically disagree on the *nature* of the impacts of urban sprawl. In the North American context for example, there is disagreement over whether the perceived problems of urban sprawl – such as leapfrog development, increased automobile usage and low-density and unlimited outward expansion – are in fact ‘problems’.<sup>63</sup> Many Americans are ambivalent about sprawl, holding conflicting and changing preferences.<sup>64</sup> Similar arguments also exist in Australia over the comparative impacts of different forms of urban growth, epitomised in the urban sprawl versus urban consolidation debate, with argument and counter-argument about which represents the

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<sup>60</sup> Lundgren, J. ‘Patterns’, in Wall, G. (ed) *Outdoor Recreation in Canada*, (Toronto, 1989), p. 153.

<sup>61</sup> Burchell, R., Shad, N., Listokin, D., Phillips, H., Downs, A., Seskin, S., Davis, J., Moore, T., Helton, D., Gall, M., *The Costs of Sprawl – Revisited*. Report 39, Transit Cooperative Research Program, Transportation Research Board, National Research Council. (National Academy Press, Washington, D.C., 1998).

<sup>62</sup> Draper, A., ‘Conservation easements: Now more than ever – overcoming obstacles to protect private lands’, (2004) 34 *Environmental Law* 247 at 250.

<sup>63</sup> Johnson, M.P., ‘Environmental impacts of urban sprawl: a survey of the literature and proposed research agenda’ (2001) 33 *Environment and Planning A* 717. See also Bruegmann, R., *Sprawl: A Compact History*, (University of Chicago Press, Chicago, IL, 2005).

<sup>64</sup> Myers, D. and Gearin, E., ‘Current preferences and future demand for denser residential environments’, (2001) 12(4) *Housing Policy Debate* 633.



more ‘sustainable’ form of urbanisation.<sup>65</sup> Indeed, in Australia there have been debates extending back to at least the late 1940s over the nature of urban growth, low-density residential development and suburbanisation.”<sup>66</sup> Here it may be observed that the arguments against urban consolidation have generally not placed weight on concerns such as loss of biodiversity, scenic landscapes and productive farmland, as well as adverse effects on air and water quality, resulting from urban sprawl.<sup>67</sup> Urban intensification, conversely, has been actively promoted by the European Community, which suggests that the high-density compact city should be the blueprint on which future development is based.<sup>68</sup> Yet Breheny, in a study of European cities, has examined a number of areas where there are contradictions between the ‘compact city’ and the ‘green city’.<sup>69</sup>

Nonetheless, in focusing on the environmental impacts of urban sprawl, the following consequences have been identified:

loss of environmentally fragile land; reduced regional open space; greater air pollution; higher energy consumption; decreased aesthetic appeal of landscape; loss of farmland; reduced diversity of species; increased runoff of stormwater; increased risk of flooding; excessive removal of native vegetation; monotonous (and regionally inappropriate) residential visual environment; absence of views; presence of ecologically wasteful golf courses; ecosystem fragmentation.<sup>70</sup>

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<sup>65</sup> See, for example, Stretton, H., *Ideas for Australian Cities*, 3<sup>rd</sup> edn. (Transit, Sydney, 1989); Spearritt, P. and DeMarco, C., (1988) *Planning Sydney's Future* (Allen and Unwin, Sydney, 1988); McLoughlin, B., ‘Urban Consolidation and Urban Sprawl: a question of density?’ (1991) 9(3) *Urban Policy and Research* 148; Davidson, G. (1993) *The past and the future of the Australian suburb* (Working Paper 33, Urban Research Program, Australian National University, Canberra, 1993); Troy, P., *The Perils of Urban Consolidation: A discussion of Australian housing and urban development policies* (The Federation Press, Sydney, 1996); Gleeson, B., *Australian Heartlands: making space for hope in the suburbs* (Allen & Unwin, Sydney, 2006).

<sup>66</sup> Burnley, I., Murphy, P. and Jenner, A., ‘Selecting Suburbia: Residential Relocation to Outer Sydney’ (1997) 34(7) *Urban Studies* 1109.

<sup>67</sup> See for example: McLoughlin, J. B., ‘Urban consolidation and urban sprawl: a question of density?’ (1991) 9(3) *Urban Policy and Research* 148; Buxton, N. and Scheurer, J., ‘Density and Outer Urban Development in Melbourne’ (2007) 25(1) *Urban Policy and Research* 91; Sinclair, I. and Bunker, R., ‘Planning for rural landscapes’, in Thompson, S. (ed.) *Planning Australia: An overview of urban and regional planning* (Cambridge University Press, Port Melbourne, 2007).

<sup>68</sup> Nicol, C. and Blake, R., ‘Classification and Use of Open Space in the Context of Increasing Urban Capacity’, (2000) 15(3) *Planning Practice and Research* 193.

<sup>69</sup> Breheny, M., ‘The contradictions of the compact city: a review’, in Breheny, M. (ed.) *Sustainable Development and the Urban Form*, (Pion, London, 1992).

<sup>70</sup> Johnson, above n 63, pp. 721-722.



The process of continued urbanisation and sprawl on the fringe of Australian cities is under challenge from two directions. The first is the debate and re-evaluation over the form and character of Australian cities, especially continued low-density growth. This has been manifested in a growing pre-occupation with urban consolidation, infrastructure costs, energy use, and modes of urban travel.<sup>71</sup> As important as these new directions are in the academic discourse, policy debate and government action in relation to contemporary Australian cities, this thesis assumes that growth will continue on the fringe and so the issue that needs to be addressed is how this growth should be *managed*. The second challenge is linked to the first, and concerns the *use* of the rural-urban fringe and is revealed in a number of perspectives:

1. A growing concern with the management of natural resources (that is, land, water, biodiversity, landform and landscape), particularly in the rural context. Manifestations of this concern include the progress toward more formal and structured integrated resource management and planning programs such as total catchment management in New South Wales and integrated catchment management in Western Australia, as well as the evolution of community-based programs such as Landcare.
2. The recognition of the primary production significance of rural-urban fringe and its economic importance – reflected in the existence of ‘right-to-farm’ legislation in some states and general acknowledgement of the tourist potential of the fringe – point to a growing awareness and concern.
3. The intensification of ‘counter-urbanisation’ expectations of the expanding non-farm residential population of the Australian fringe. Recent Australian, British and North American experience indicates that “this new constituency is assuming an increasingly high profile in policy formulation and decision-making. It is likely to see demands for further constraints on development on

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<sup>71</sup> See, for example: Collie, M., ‘The Case for Urban Consolidation’, (1990) 28(2) *Australian Planner* 26; and Westerman, H., ‘Realising the consolidated city’, in Freestone, R. (ed.) *Spirited Cities* (The Federation Press, Leichhardt, Sydney, 1993).



the fringe, but for amenity and environmental quality reasons rather than agricultural ones.”<sup>72</sup>

New urban growth and the attendant impacts on natural resources caused by the change in land use implicit in urbanisation are no longer confined to the fringe of Australia’s major metropolitan cities however. With the rise of phenomena such as ‘sea change’ (population move to coastal areas), ‘green change’ (population move to inland areas), the impacts of human settlement and accompanying natural resource exploitation are becoming geographically more widespread. Further, with the formulation of the concept of the ‘ecological footprint’,<sup>73</sup> the natural resource and environmental impacts of cities are now recognised to be more extensive than previously realised. The ‘fringe’ therefore, is no longer the ‘urban/rural fringe’ of the capital cities, but now extends over a much greater area throughout much of regional and rural Australia. For example, a 1996 study of tourism and rural change in the Shire of Denmark, situated on the south coast of Western Australia some 400 kilometres from the state capital, described the urban growth pressure evident in that locality so that it was effectively “on the very periphery of Perth’s urban field.”<sup>74</sup>

The issues discussed in this thesis therefore, are not confined solely to the fringe of Australia’s major cities, but have more extensive application. Thus ‘the fringe’, when referred to in this thesis is a concept much broader than traditional concepts of the rural/urban fringe, with its imagery of agricultural-urban land conversion and conflict (though this is still important), but denotes all those demarcation areas where the impacts of urban-based human activity – that is, the built environment – conflict with the preservation of natural resources and environmental protection. Nonetheless, while the field covered in this thesis has an extensive application, its scope of research is focused on the narrower geographic interpretation of the rural-urban fringe through adoption of the Sydney region case study.

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<sup>72</sup> Bunker, R. and Houston, P., ‘At and Beyond the Fringe: Planning Around the Australian City with Particular Reference to Adelaide’ (1992) 10(3) *Urban Policy and Research* 23 at 25.

<sup>73</sup> Rees, W., ‘Ecological footprints and appropriated carrying capacity: what urban economic leave out’, (1992) 4(2) *Environment and Urbanisation* 120.

<sup>74</sup> Selwood, above n 45, p. 216.



## 2.4 The significance and problems of the fringe

The goods and services provided by rural lands, including agricultural products, wildlife habitat, and the preservation of soil and water quality, are vital for humans as well as for the conservation of biodiversity.<sup>75</sup> Yet in countries like the US, sprawl is converting forests, agricultural land, and wetlands into built environments beyond the edges of urbanising areas (the ‘urban fringe’) at an alarming and increasing pace.<sup>76</sup> Sprawl affects farmland, water supply, wildlife, habitat availability, and overall habitat quality.

In Britain and the US considerable traditions have developed about the relationship of the countryside to the cities. In Britain the greenbelt principle has been adopted, while in North America a strong regional resource planning theme has developed. Compared to Britain and the US, “...Australia has very little of this tradition of concern for the fringe. Instead, our cities have simply grown, almost regardless of the features in their outward path.”<sup>77</sup> Three interrelated factors in particular, have been identified as contributing to the inexorable urban development of the fringe in Australia. These are:

1. The ‘impermanence syndrome’ (or alternatively, the ‘superannuation’ syndrome) of agricultural land
2. The presumption of property rights
3. The powerful expectation of urban development on the fringe

These three factors are discussed further below, particularly in the context of the loss of agricultural and other non-urban land.

### 2.4.1 Why the fringe should be protected – agricultural value

Many farmers and other landholders in the Australian fringe believe that urban expansion will inevitably overtake them and that, as a consequence, agriculture has

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<sup>75</sup> Gude, above n 40.

<sup>76</sup> Gillham, O., *The Limitless City: A Primer on the Urban Sprawl Debate*. (Island Press, Washington, DC, 2002).

<sup>77</sup> Bunker, above n 72, p. 24.



only a limited future there. Commenting on this ‘impermanence syndrome’ in Australia, Bunker and Houston relate:

Despite the fact that agricultural surveys show the area adjacent to Australian cities as generally being the most productive, the ‘impermanence syndrome’ leads to a progression of self-reinforcing changes in the way that farmers invest in, manage and use their land. These include reversion to low input farming systems, perhaps to the extent that land becomes idle or is used just for agistment; cost-cutting on management of land, farm operations and capital items; and ultimately sale of land for hobby farms or residential purposes ... From the perspective of a concern for the planning and management of the fringe and the distinctive problems attending these tasks, this phenomenon assumes central importance because of the way in which it influences the pool of land available for development and drives land use change.<sup>78</sup>

While true as a generalisation, these observations need to be qualified. The ‘impermanence syndrome’ may increase the supply of *potentially* available land for land use change including urbanisation. Agricultural land may however, be subject to physical constraints on development – for example flooding, geotechnical, biodiversity or servicing constraints. Additionally, if lot sizes are small – for example where larger agricultural parcels have already been subdivided for intensive agriculture and/or hobby farms – high acquisition costs may be a deterrent to developers. Many of the expectant landholders in the former green zones of south-west and north-west Sydney referred to in Chapter 1 are likely to find themselves in this situation; they may be willing to sell their land for urbanisation, but may not be able to find willing buyers.

Working together with this perception of the ‘impermanence or superannuation syndrome’ and the process of land use change is the widely held belief by landholders in the fringe that they have intrinsic development ‘rights’. At its most basic, under this presumption of development rights,

“...there is a common view that ownership of the legal title to an allotment carries with it the right to construct a dwelling on that land regardless of planning policy or the practicality of so doing. When it is remembered that a typical farm holding would consist of several allotments, the scope for fragmentation, leap-frogging of new development, sterilisation of large areas

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<sup>78</sup> Ibid, p. 24.



from farming purposes and reinforcement of the ‘impermanence syndrome’ can be appreciated”<sup>79</sup>

Thus, an implicit yet powerful expectation of urban development on the fringe is reinforcing and encouraging this acquiescent retreat of agriculture in the face of urbanisation and rural-residential living activity. Progression to “ever ‘higher and better’ uses in the fringe have been traditionally viewed as inevitable and inexorable by both rural and urban sectors of the community alike.”<sup>80</sup> With this land use change, other natural resource and environmental attributes – for example, biodiversity and habitat, open space, water and air quality – inevitably suffer as well.

The ‘impermanence syndrome’ of agriculture is also evident in the American context (see *Figure 2.1, The Cycle of Farmland Conversion*). This phenomenon in relation to loss of farm land has been explained by the associated construction of roads, schools and utility lines as well as rises in property values.<sup>81</sup> Further, a study which sought to explain the patterns of rural residential development in the Greater Yellowstone ecosystem – comprising 20 counties within Montana, Wyoming and Idaho surrounding the Yellowstone and Grand Teton National Parks – confirmed the ‘impermanence syndrome’, and its implications for biodiversity conservation within and around the two National Parks.<sup>82</sup> The study showed that development of new home sites encouraged further conversion of nearby undeveloped land, shown by a strong correlation between past development and new development.

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<sup>79</sup> Ibid, p. 24.

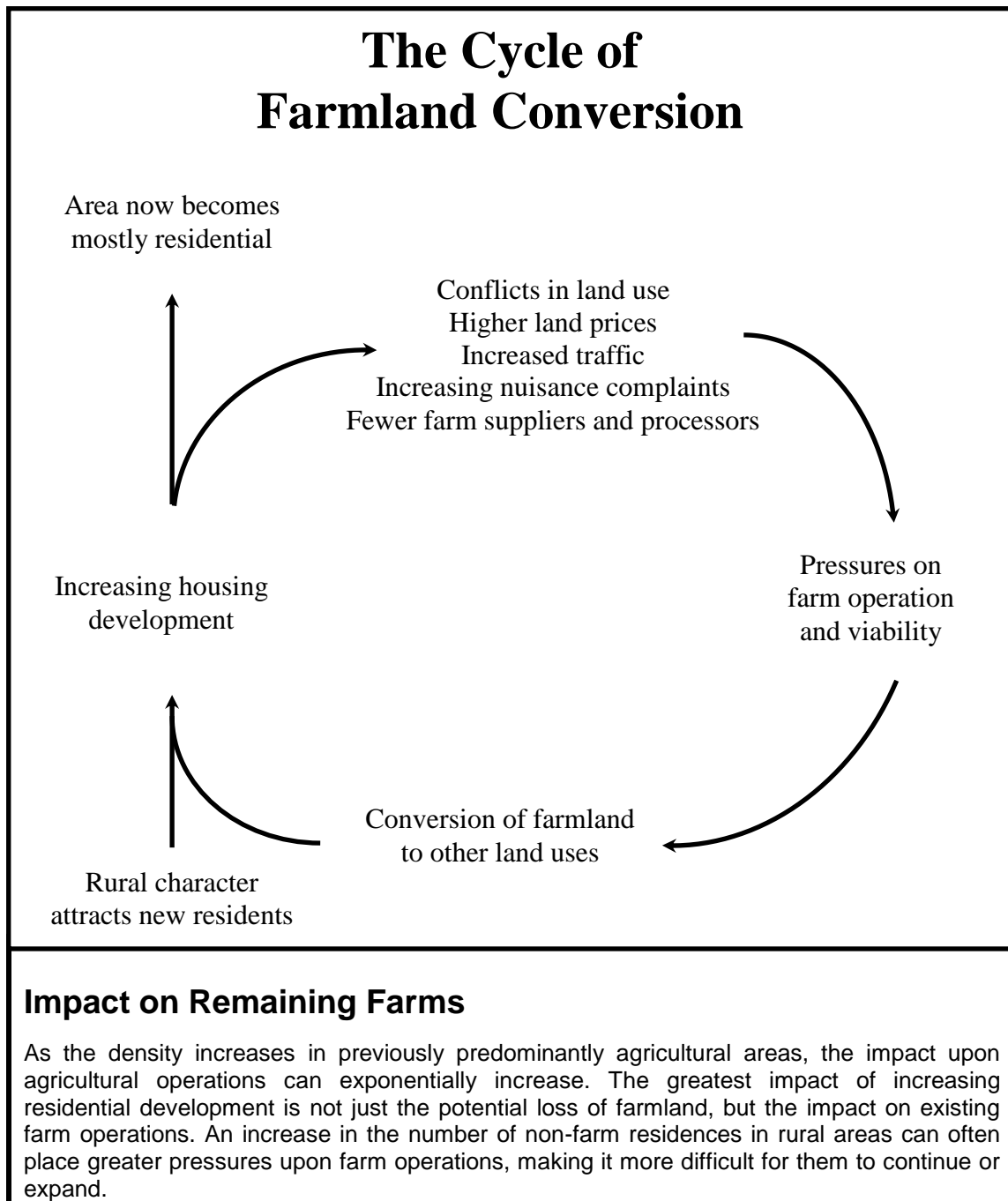
<sup>80</sup> Ibid, p. 24.

<sup>81</sup> Daniels, above n 51.

<sup>82</sup> Gude, above n 40.



**Figure 2.1: The Cycle of Farmland Conversion**



Source: Daniels, T. and Bowers, D., *Holding Our Ground: Protecting America's Farms and Farmland*, (Island Press, Washington, DC, 1997), p. 6.

It may be observed that much of the growth management literature concentrates on the protection of one particular land use found on the fringe – farmland or agricultural land. Protection of farmland *may* assist in the protection of other natural resource values on the urban-rural fringe such as biodiversity, water quality and scenic



landscapes. Similarly, some of the tools or mechanisms identified for the protection of farmland might be adopted to protect other fringe-located uses such as open space, environmentally sensitive land and land of high conservation and biodiversity habitat value. Daniels and Bowers for example, address this issue in the context of the question of ‘protecting farmland or protecting open space?’<sup>83</sup> While they answer this question by indicating that their emphasis “is on protection of farmland as an economic asset that also happens to be pleasing to look at”, many of the tools and programs they identify “can be used to protect open space that is not farmed”, so that “farmland protection may be thought of as open-space protection without public access to the property”.<sup>84</sup> This view needs to be qualified however, as farming at least allows the landholder a productive use, and biodiversity conservation may not. As a consequence the policy instruments needed may be quite different. For example, it might be easier to use command regulation to protect farmland, whereas the government (or a developer) may need to pay compensation for the active management of biodiversity.<sup>85</sup> Yet command regulation alone may not, of course, guarantee the continued productive use of agricultural land, and financial incentives (such as those afforded by green offset and transfer or purchase of development rights schemes) may also be necessary.

Loss of agricultural land through conversion to urban and other uses is a hallmark of affluent societies. In the past there has been considerable disagreement overseas as to the magnitude and significance of the problem and the appropriateness of policy responses. Nevertheless, in countries like the US and Britain (and in Australia to some extent) there is now a general acceptance of the need to protect agricultural land against urban encroachments and much debate focuses on the choice of appropriate instruments.<sup>86</sup>

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<sup>83</sup> Daniels, T. and Bowers, D., *Holding Our Ground: Protecting America's Farms and Farmland*, (Island Press, Washington, DC, 1997).

<sup>84</sup> Ibid, p. 12.

<sup>85</sup> See for example: Polasky, S., Doremus, H. and Retting, B. ‘Endangered species conservation on private land’, (1997) 15(4) *Contemporary Economic Policy* 66; Stroup, R., “The economics of compensating property owners”, (1997) 15(4) *Contemporary Economic Policy* 55.

<sup>86</sup> See, for example, Jackson, R., *Land Use in America*, (Arnold, London, 1981); Lapping, M., Daniels, T., and Keller, J., *Rural Planning and Development in the United States*, (Guildford, New York, 1989); Daniels, T., *When City and Country Collide: Managing Growth in the Metropolitan Fringe*, (Island Press, Washington, DC, 1999).



In making the case for farmland protection, it has been stated that “aside from the aesthetic reasons that are plain to see ... [there are] fiscal and economic benefits of retaining farmland.”<sup>87</sup> Four such benefits are identified:

- protecting farmland is good fiscal policy: with empirical evidence adduced to demonstrate (at least in the US situation) that “farmland provides fiscal benefits by generating more in local taxes than it demands in local services.”<sup>88</sup> Similarly, in the Australian context the loss of agricultural land to hobby farm and other forms of peri-urban development has been found to result in a shortfall of revenue to cover services, necessitating the subsidisation of services provided to fringe settlements.<sup>89</sup>
- protecting farms and farmland is good economic development policy
- protecting local farming promotes a diverse local economy
- farmland protection can minimise conflicts with non-farm neighbours: farmland protection through tools such as zoning and the purchase or transfer of development rights can mean fewer houses built in farming areas, which is likely to result in fewer conflicts between the farmer’s activities and the way of life of non-farming residents.

Turning specifically to NSW, much debate has centred around rural-residential or ‘hobby farm’ development and the degree to which it is responsible for the loss of agricultural land. One view in this debate challenges the extent to which productive agricultural land and prime agricultural land have been lost from agriculture in NSW, through the development of hobby farms.<sup>90</sup> The conventional understanding was that as counterurbanisation developed in coastal and exurban areas of NSW during the 1970s it was accompanied by extensive subdivision of rural allotments as well as settlement or reoccupation of many existing smaller allotments in non-urban areas for use as hobby farms and for rural residential purposes.<sup>91</sup> Doubts have been raised

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<sup>87</sup> Daniels, above n 83, p. 15.

<sup>88</sup> Ibid, p. 15.

<sup>89</sup> Industry Commission, *A Full Repairing Lease: Inquiry into Ecologically Sustainable Land Management*, (Report No.60, 27 January 1998, Commonwealth of Australia, Canberra, 1998)

<sup>90</sup> Bowie, I., ‘Land Lost from Agriculture: A Dubious Basis for Rural Policy’ (1993) 11(4) *Urban Policy and Research* 217.

<sup>91</sup> Smailes, P. and Hugo, G., ‘A Process view of the Australian population turnaround: An Australian rural case study’, (1982) 1(1) *Journal of Rural Studies* 31.



about this perception of the loss of agricultural land to hobby farming – at least in the 1970s and 1980s – as it was not substantiated by available data such as agricultural censuses conducted by the Australian Bureau of Statistics. Under this view, what the evidence did indicate however was “a restructuring of many smaller holdings into still smaller part-time farms, on the one hand, and rather larger more resource-efficient farms on the other”.<sup>92</sup>

A counter argument however, based on NSW Department of Agriculture data, suggests a somewhat different picture.<sup>93</sup> In the 1970’s, a decade of significant rural-residential development, 564,000 ha of agricultural land were lost to hobby farms in NSW. This represented 95.1% of all agricultural land lost to other uses between 1970 and 1979 (582,900 ha). Urban land use conversely, only accounted for 4.2% (24,700 ha) of total agricultural land lost in NSW over this period. Significantly however, even though the proportion of land lost to urban (or more precisely suburban sprawl) development is not as large in area terms than the land lost to exurban rural-residential development, it is often the former that is the more productive and strategically-placed agricultural land in terms of the metropolitan markets.<sup>94</sup>

Despite the different analyses, both views agree that agricultural land – especially prime and productive land – should be protected. Both also concur that the primary instrument relied on in NSW since the 1960s to achieve this – subdivision controls usually in the form of minimum allotment sizes for agricultural land – by itself, has not halted the loss of agricultural land, or at least the removal of such land from agricultural production.

In summary, “we should look to conserving, for long term use, the better quality agricultural lands which are a finite, limited resource”<sup>95</sup> This cause of conserving agricultural land is prompted by the need to conserve the better land from which Australia’s major agricultural exports come; and to keep open options on areas covering a range of soils and climates, particularly in the higher rainfall areas of the

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<sup>92</sup> Bowie, I., above n 90, p. 225.

<sup>93</sup> Hawkins, C., ‘The Conservation of Agricultural Land and the Realities of Farm Economics’, (1986) 54(3) *Review of Marketing and Agricultural Economics* 57.

<sup>94</sup> Sinclair, I., ‘Growth management and agricultural land’, *Planning Law and Practice Goes Bush*, (Faculty of the Built Environment, University of New South Wales, Kensington, NSW, July 1999).

<sup>95</sup> Hawkins, C., above n 93, p. 57.



coast, for the growth of perishable foods and new crops close to the major urban markets.

#### **2.4.2 Why the fringe should be protected – conservation value – protection of natural and cultural heritage and landscapes**

It is a well-established fact that urbanisation is one of the major drivers of biodiversity loss since it modifies landscapes to suit only humans.<sup>96</sup> Urbanisation – urban expansion at the urban-rural fringe or into the peri-urban landscape – results in vegetation loss and modification, invasion of exotic species and disruption of ecological processes and cycles.<sup>97</sup> Some 34% of the total forest in Australia has been lost since European settlement in 1788. Included in this loss is approximately 75% of all rainforest and over 60% of the wetlands in southern and eastern Australia, the most densely populated and urbanised parts of the continent.<sup>98</sup>

Habitat (and inevitably biodiversity) is lost in two ways as a result of conversion to human-dominated uses. Firstly, and most obviously, there is a direct reduction in the area of available habitat, which could eliminate certain habitats entirely, along with species dependent on these lost habitats. Secondly is the less immediately realised effect of habitat fragmentation. The scattered pattern of modern development not only consumes an excessive amount of land, it fragments the landscape, leaving smaller patches of intact natural habitat and creating greater portions of edge habitat between differing land cover types. Large areas of natural vegetation are usually more effective than small areas for protecting aquifers and watersheds, sustaining viable populations of most species, providing core habitat and escape cover for wide-ranging vertebrates, and allowing natural disturbance regimes.<sup>99</sup> Numerous studies have shown the negative ecological effects of vegetation fragmentation in the

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<sup>96</sup> McKinney, ML., 'Urbanisation as a Major Cause of Biotic Homogenisation', (2006) 127 *Biological Conservation* 247.

<sup>97</sup> Taylor, MP. And Ives, C., 'Legislative and policy challenges for the protection of biodiversity and bushland habitats: An evidence-based approach', (2009) 26 *Environmental and Planning Law Journal* 35; McKinney, ML., 'Urbanisation, Biodiversity and Conservation' (2002) 52(10) *Bioscience* 883.

<sup>98</sup> Trewin D., *Measuring Australia's Progress* (Australian Bureau of Statistics, Belconnen ACT, 2006) p 216; Taylor, MP. And Ives, C., 'Legislative and policy challenges for the protection of biodiversity and bushland habitats: An evidence-based approach', (2009) 26 *Environmental and Planning Law Journal* 35 at 35.

<sup>99</sup> Dramstad, W., Olson, J. and Forman, R., *Landscape Ecology Principles in Landscape Architecture and Land-use Planning*, (Island Press, Washington, DC, 1996).



landscape; “habitat fragmentation is perhaps the greatest worldwide threat to forest wildlife, and the primary cause of species extinction.”<sup>100</sup>

Sprawling urbanisation therefore not only consumes natural habitats and fragile ecosystems,<sup>101</sup> but also fragments, degrades and isolates remaining natural areas:

The sprawl landscape is unlike the original and is often dominated by non-native plantings. As a result, natural vegetation or protected areas in and adjacent to sprawl settlement may be more susceptible to invasion by non-native species and may quickly become dominated by such species.<sup>102</sup>

A related issue here is that threats to national parks from development outside their boundaries are increasing especially on the urban fringe.<sup>103</sup> Threats from both adjacent public and private lands pose major problems which park managers have little control over. While they result from many causes, the major threats are associated with human action, and in particular, urbanisation. These threats include the clearing of vegetation for housing which reduces the area of habitat, and fencing which can impede wildlife movement.

The green space or open space values of the fringe make an important contribution to all inhabitants, including animals and plants, of urban areas. Three key benefits of open space to the quality of urban life have been identified: (1) the manner in which it facilitates recreation; (2) its psychological benefits; and (3) its role as a habitat for flora and fauna.<sup>104</sup> A number of studies have specified the psychological benefits of ‘greenery’ and well-vegetated lots or those close to vegetated spaces, particularly areas that exhibit a degree of ‘natural wildness’, rather than well-managed parks dominated by playing fields for example.<sup>105</sup>

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<sup>100</sup> Weber, T., Sloan, A., and Wolf, J., ‘Maryland’s Green Infrastructure Assessment: Development of a comprehensive approach to land conservation’, (2006) 77 *Landscape and Urban Planning* 94 at 95-96.

<sup>101</sup> Forster, C., *Australian Cities: continuity and change*, 2nd ed. (Oxford University Press, South Melbourne, 1999), p. 125.

<sup>102</sup> Robinson, above n 42, p. 52.

<sup>103</sup> Coveney, J., ‘Planning for Areas Adjacent to National Parks in Victoria’, (1993) 11(4) *Urban Policy and Research* 208 at 208.

<sup>104</sup> Nicol, above n 68, a pp. 195-196.

<sup>105</sup> See for example: Arendt, R., *Growing Greener: Putting Conservation into Local Plans and Ordinances*, (Island Press, Washington, DC, 2000); Kaplan, S., ‘Human Nature and Environmentally Responsible Behaviour’ (2000) 56 *Journal of Social Issues* 491; Tregoning, H., Agyeman, J. and Shenot, C., ‘Sprawl, Smart Growth and Sustainability’ (2002) 7 *Local Environment* 341.



With continuing urban expansion, including into adjoining agricultural areas, promoting wildlife diversity in and around cities is becoming more challenging to planners. The advantages to wildlife of maintaining urban-agricultural parks for example (that is, preserved agricultural areas inside and on the fringe of the city) have been recognised.<sup>106</sup> One study that aimed to assess the best location and management of wildlife in natural areas at the urban-rural interface, suggested that urban-agricultural parks rated better than urban parks (that is areas available primarily for human enjoyment) and agricultural areas just outside the city. The study dealt with the European context and so the three study areas chosen – urban-agricultural parks, urban parks and agricultural areas – “represent the three main kinds of management of natural area in the city and its surroundings”.<sup>107</sup> Thus, omitted from the study was lands covered by the conservation estate, such as national parks, which form a major component of natural areas around Australian cities and particularly Sydney. However, the results are still relevant and encouraging, given the realisation that there is a limit to how much land can be dedicated to the conservation estate and that biodiversity conservation in Australia needs to look increasingly at appropriate tools for achieving species protection on private lands. Peak environmental organisations such as the Environmental Defender’s Office and the Total Environment Centre for example, recognise the need for biodiversity conservation on private lands in NSW and “strongly support providing incentives” for this purpose.<sup>108</sup>

In the NSW context, the challenges of reversing the trend of decline in condition of natural resource systems including native vegetation, biodiversity, land, rivers and coastal was recognised in the 2006 *State Plan*.<sup>109</sup> In the 2008 *Annual Report* on the State Plan,<sup>110</sup> progress was reported toward meeting 13 targets set for ‘biodiversity, water, land and community’ by the NSW Natural Resources Commission.<sup>111</sup> Six of

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<sup>106</sup> Sorace, A., ‘Value to Wildlife of Urban-Agricultural Parks: A Case Study from Rome Urban Area’ (2001) 28(4) *Environmental Management* 547.

<sup>107</sup> Ibid, p. 548.

<sup>108</sup> Environmental Defender’s Office and Total Environment Centre, *Submission on the Proposed Biodiversity Banking Scheme* (EDO and TEC, Sydney, February 2008), <http://www.edo.org.au/edonsw/site/pdf/subs/080207biobanking.pdf>, viewed 25 April 2011.

<sup>109</sup> NSW Government, *State Plan – A New Direction for NSW* (Premier’s Department, Sydney, November 2006), <http://www.stateplan.nsw.gov.au/library>, viewed: 26 April 2011.

<sup>110</sup> Ibid.

<sup>111</sup> Natural Resources Commission *Recommendations: State-wide Standard and Targets* (Natural Resources Commission, Sydney, September 2005),



these natural resource management targets were classed as being in poor condition and seven in fair condition; none were assessed to be in good condition. Further, four of these targets – number of sustainable populations of native fauna, recovery of threatened species and eco communities, invasive species status, and groundwater systems and dependent ecosystems – were found to be trending toward ‘condition deteriorating’. The remaining nine targets were assessed as ‘condition remaining the same’. None were deemed to be adequate to be classed as ‘condition improving’. As a consequence, the Annual Report rather bleakly concluded that “on the basis of current data, the biodiversity targets are among the most challenging of the natural resource management goals.”<sup>112</sup>

In terms of Sydney, the conservation value of the Sydney fringe is evident from data revealing the Sydney Basin Bioregion to be one of the most species diverse bioregions in Australia.<sup>113</sup> In addition, the Sydney Basin Bioregion is home to two endangered and four vulnerable frog species, 54 vulnerable and 14 endangered bird species, 25 vulnerable, three endangered and one extinct mammal species, and 11 vulnerable and two endangered reptile species.<sup>114</sup> Most recently the *NSW Draft Biodiversity Strategy 2010-2015* has recognised that “much remains to be done to address the combined legacy of rapid population growth and the resultant consumption, agricultural impacts, urban development and past unsustainable natural resource management practices that have occurred since European settlement.”<sup>115</sup>

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<http://www.nrc.nsw.gov.au/content/documents/Recommendations%20-%20State-wide%20standard%20and%20targets%20September%202005.pdf>, viewed 25 April 2011.

<sup>112</sup> NSW Government, above n 109, p. 57.

<sup>113</sup> Office of Environment and Heritage, *Sydney Basin – biodiversity*, (2011) <http://www.environment.nsw.gov.au/bioregions/SydneyBasin-Biodiversity.htm>, viewed 25 April 2011.

<sup>114</sup> Ibid.

<sup>115</sup> Department of Environment, Climate Change and Water *Draft New South Wales Biodiversity Strategy 2010-2015*, (DECCW, Sydney, November 2010), p. 4, <http://www.environment.nsw.gov.au/resources/biodiversity/strategy/10821DraftBioStrat.pdf>, viewed: 25 April 2011. The Draft Strategy states (at page 4) that “New South Wales has experienced declines and extinctions in a broad suite of native plants and animals since European settlement. Almost one-fifth of mammal species in the state (26 of 138 species) are now presumed extinct. In addition, 33 species of plants, 12 species or subspecies of birds, 2 species of fish and 1 species each of reptile and invertebrate are also now presumed extinct.” Further, “only 9% of the native vegetation cover is considered to be in a base-line or original condition state. Twenty-six per cent (26%) of the native vegetation cover is significantly degraded, while the remainder is either non-native (13%), or has been modified (52%).”



By way of example, Penrith local government area, one of the local councils considered in more detail in the Sydney Region case study later in this thesis, is typical of the biodiversity values and threatened species and ecosystems on the fringe of Sydney. As reported in the *Penrith Rural Lands Strategy* there is a diverse range of native fauna and flora species within the Penrith area.<sup>116</sup> Specifically, a total of 374 native vertebrate species occurs or is likely to occur, comprising 17 species of fish, 32 amphibians, 46 reptiles, 57 mammals and 222 birds. However, there are 37 threatened fauna species occurring or likely to occur, with these threatened species reliant on the retention of native vegetation for their continued existence.

There is a high diversity of native plants in Penrith with over 500 species in four broad vegetation types. This includes 13 plant species listed as rare or threatened at the national level and one species presumed extinct. There are 38 species which are considered to be of conservation significance in Western Sydney and another 139 which are vulnerable or inadequately conserved. Significantly, “most of the native plant species found within the rural areas of Penrith are confined to remnant patches of native vegetation on private land outside of conservation reserves.”<sup>117</sup> Mapping of all remnant native vegetation greater than 0.5 hectares in size in the Cumberland Plain of Western Sydney published by the NSW National Parks and Wildlife Service indicated that the Penrith local government area (LGA) contained over 25% of remnant Cumberland Plain Woodland communities across the Cumberland Plain.<sup>118</sup>

Despite the Sydney Basin Bioregion having the highest human population of any NSW bioregion, surprisingly significant areas of native vegetation remain unchanged since European occupation,<sup>119</sup> and so the opportunity to save substantial biodiversity habitat is still available. General threats to species in the bioregion continue however, including broad-scale vegetation clearing and loss of remnants as well as grazing by stock. Urbanisation is also a major threat to many species in the built-up areas in the bioregion.<sup>120</sup> Given the threats and pressures caused on ecosystems and native

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<sup>116</sup> Penrith City Council *Penrith Rural Lands Strategy*, (Penrith City Council, Penrith, September 2003), <http://www.penrithcity.nsw.gov.au/index.asp?id=361>, viewed: 25 April 2011.

<sup>117</sup> Ibid, p.12.

<sup>118</sup> New South Wales National Parks and Wildlife Service *The Native Vegetation of the Cumberland Plain, Western Sydney*, (NSW NPWS, Hurstville, 2000).

<sup>119</sup> Office of Environment and Heritage, above n 113.

<sup>120</sup> Ibid.



species populations by urbanisation, the case for preserving peri-urban and rural land for habitat for biodiversity appears compelling.

### **2.4.3 Why the fringe should be protected – pollution, waste and water quality**

Urbanisation of the rural-urban fringe results in significant threats to the environmental quality of both the land being urbanised and adjacent public land (including national parks and other conservation lands) and private farming land. The acceptable disposal of sewage is one of the major environmental issues facing the fringe of Sydney today.<sup>121</sup> Threats include pollution from leaking septic tanks which affect water quality. The disposal of urban wastes, especially sewage has implications for all land uses on the fringe, including the continuation of agriculture. Further, threats also originate from practices on agricultural land itself, particularly its impacts on adjoining waterways and national parks. Rural threats may come from different sources such as from the use of agricultural sprays, chemicals, irrigation development and straying stock.<sup>122</sup>

Further adverse environmental impacts of continued urban development on the fringe include increased air pollution and changes to hydrological regimes.<sup>123</sup> Rising levels of air pollution (such as hydrocarbons and nitrous oxides) have been noted in the south west, western and north west fringes of Sydney, for example, and have been projected to continue into the foreseeable future as a result of further urbanisation of these areas.<sup>124</sup> Impacts of the alteration of the hydrological system of an area as a result of urbanisation include increased surface runoff causing flooding, erosion and sedimentation of waterways.<sup>125</sup> Also included in runoff from urbanised areas is a higher pollutant load in terms of secondarily treated sewage, heavy metals, fertilisers, and accumulated road deposits such as oils, litter and waste vegetation. While levels of pollutants are higher in runoff from established residential areas than in developing suburbs or from rural catchments, suspended sediment concentrations are usually

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<sup>121</sup> Sinclair, I., above n 94, p. 3.

<sup>122</sup> Coveney, above n 103, p. 208.

<sup>123</sup> Forster, above n 101, p. 125.

<sup>124</sup> Bridgman, above n 4.

<sup>125</sup> Warner, R., 'Impacts of Environmental Degradation on Rivers, With Some Examples from the Hawkesbury-Nepean System' (1991) 22(1) *Australian Geographer* 239.



highest in runoff from developing areas.<sup>126</sup> Indeed, in the case of Sydney, poor quality runoff has been a major argument against its continued expansion into large new housing estates in the catchment of the Hawkesbury-Nepean River. During low flows, over 90% of water in the river is urban effluent, due to the urban runoff and treated sewage received by the river; while heavy metal concentrations are elevated in several of the river's urbanised headwaters.<sup>127</sup>

Environmental and natural resource degradation problems caused by urban expansion on the fringe of Sydney are clearly evident. For example, Camden Council, which is the fastest growing local government area in the Sydney Region, and the recipient of the bulk of the residential development to occur in the South West Growth Centre of Sydney, has described some of the concerns and challenges caused by mismanaged growth in peri urban locations:

The water and aquatic ecosystems have been exposed to increasing pressures. Point source pollution, onsite effluent disposal, stormwater runoff, rural discharges and vegetation removal all reflect in reduced water quality and diminished biological diversity. The banks of the rivers and creeks are fragile and exposed to widespread degradation. Streambank rehabilitation is critical. The environmental flows necessary for river system balance are compromised by structural devices, riparian demands and detention based stormwater control systems. The area's biological diversity is under threat as reflected in the recognition of endangered ecological communities. The conservation of biological diversity must be strategically approached. Opportunities for the retention and development of vegetation and wildlife corridors should be embraced.<sup>128</sup>

Finally, for a number of years air and water quality had been perceived as the two most serious problems in terms of scale and intractability, confronting continued urban growth in Sydney.<sup>129</sup> However dwindling water supply vis-à-vis consumer demand has loomed in recent years to dominate debate on the future growth, not just

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<sup>126</sup> Young, A., *Environmental change in Australia since 1788*, 2nd ed. (Oxford University Press, South Melbourne, 2000), p. 152.

<sup>127</sup> Birch, G., Shotton, N. and Steetsel, P., 'The Environmental Status of Hawkesbury River Sediments', (1998) 36(1) *Australian Geographical Studies* 37.

<sup>128</sup> Camden Council, *Camden 2025 – A Strategic Plan for Camden*, (1999), <http://www.camden.nsw.gov.au/files/managementplan/Camden%202025.pdf>, viewed 28 March 2010.

<sup>129</sup> Cardew, R., 'The Growth of Sydney and the Environment: What are the options?', in Harding, R. (ed.) (*Ecopolitics V Proceedings*, University of New South Wales, Kensington, NSW, 1992), p. 667 at 668.



of Sydney, but in urban and rural areas in Australia generally.<sup>130</sup> Water supply challenges in the Sydney region are considered in more detail in chapters 6 and 7.

## 2.5 Solutions for the fringe – growth management

The unique problems and issues that characterise the fringe mean that many contemporary approaches to planning in rural-urban fringe areas appear inadequate or distorted. There has been a tendency to rely on command and control regulation and to simply extrapolate urban-derived development control models such as land use zoning and minimum allotment sizes into the fringe, while at the same time ignoring the specific features of established rural land systems,<sup>131</sup> as well as the different management tools needed to conserve biodiversity. In relation to the appropriate tools to manage growth specifically in exurban areas, it has also been stated that:

... there appears to be difficulty in balancing the need for protection and preservation of exurban areas against the inflexibility of many strict regulatory regimes which may be unable to respond adequately to the challenges and changes which tend to occur in the dynamic exurban region”.<sup>132</sup>

These observations suggest a different model is needed, arguably one which introduces natural resource management precepts and has a reduced emphasis on traditional development control systems.

A number of solutions for managing urban growth impacts on the fringe of cities have been suggested. Several possible alternative policy responses are suggested by McKenzie to manage development in the exurban regions.<sup>133</sup> These include:

- Control or prohibition of exurban development by regulatory means, with the aim of preserving existing landscapes, natural resources and economic activities such as agriculture.

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<sup>130</sup> Hawkesbury-Nepean River Management Forum, *Water and Sydney's Future – Balancing the values of our rivers and economy*, Final Report of the Hawkesbury-Nepean River Management Forum to the Minister for Infrastructure and Planning and Minister for Natural Resources, and the Minister for the Environment, (DIPNR, Sydney, March 2004).

<sup>131</sup> Houston, P., 'Rural Planning', (1990) 28(4) *Australian Planner* 5.

<sup>132</sup> McKenzie, n 53, p. 84.

<sup>133</sup> Ibid.



- Adoption of a non-intervention position, by letting the free market determine development patterns.
- Support for a free-market approach but recognising the need for prices to more accurately reflect costs in development (including offsetting the loss of biodiversity). An example of this policy response is the need to ensure a user-pays approach to infrastructure provision (for example through developer contributions) rather than letting hidden subsidies distort market allocation of resources. This response is cognisant of the untenable argument by some developers that the market should decide whether land is converted from rural to urban use, but who then wish to distort that market through public sector subsidy of the costs of that urban development.
- Adaptation to growth trends and exploitation of the resources of the exurban region, including (perhaps especially) its amenity resources. “The protection of such amenity can be part of a strategy, not to halt development, but to encourage development which uses the ‘rural’ lifestyle image through tourism, arts and crafts, farmstay holidays, roadside produce sales, and various recreational activities”.<sup>134</sup>

Each of these policy responses has their strengths and weakness. For example, the strategy of adapting to growth and exploiting amenity resources may be acceptable up until the inevitable point where the cumulative impacts of the development that has been permitted begins to diminish those amenity values. Biodiversity conservation is, nonetheless, the exception to this viewpoint of ‘acceptable’ diminution of natural resources. Arguably also, such an approach is merely ushering in (albeit possibly delaying), the urban transformation of rural land. Rather, it is contended in this thesis that an essential growth management goal should be the permanent protection of land from urbanisation because of its natural resource attributes or values. These may include biodiversity, environmental, scenic, drinking water catchment and agricultural values. Indeed, many of the writers surveyed appear to have missed this point, focusing primarily on the protection of agricultural land for its economic value (a valid focus nonetheless, particularly in the context of growing concern over food security). Further omission appears to have occurred in that the instruments required

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<sup>134</sup> McKenzie, n 53 at p. 85.



for biodiversity conservation in particular, are likely to be quite different than those applicable to other natural resources.

Another broad planning option claimed for limiting urban expansion is urban consolidation, achieved for example, by increasing the density of existing urban areas. McLoughlin has assessed, and subsequently questioned, the extent to which increased residential densities can help urban consolidation and restrain sprawl.<sup>135</sup> His analysis of the relationship between densities and total land demand shows that higher net residential densities contribute very little to the restraint of sprawl. It is suggested therefore, that policies for density increase alone are not an effective part of an urban consolidation strategy. Further, McLoughlin describes as a “fallacy that increased residential densities save land; clearly they save quite insignificant amounts even under the most favourable assumptions and they do so at what may be considerable social, economic and environmental costs”.<sup>136</sup> These claims have been challenged:<sup>137</sup> however, as the issue of urban consolidation is beyond the brief of this thesis, further discussion of this debate cannot be pursued here.

Bengston et al provide a particularly useful systematic review of the main public policy instruments used in the US for managing urban growth and protecting open space at various governmental levels.<sup>138</sup> They “include both policies for managing urban growth and protecting open space because they are two sides of the same coin”.<sup>139</sup> Urban planning and open space preservation are argued to have long been realised to be interlinked,<sup>140</sup> in that the most effective way to protect open space is by effectively containing and managing urban growth.<sup>141</sup> The broad categories of public policy instruments for managing urban growth and protecting open space identified

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<sup>135</sup> McLoughlin, B., ‘Urban Consolidation and Urban Sprawl: a question of density?’ (1991) 9(3) *Urban Policy and Research* 148.

<sup>136</sup> Ibid, p. 155.

<sup>137</sup> Buxton, N. and Scheurer, J., ‘Density and Outer Urban Development in Melbourne’ (2007) 25(1) *Urban Policy and Research* 91.

<sup>138</sup> Bengston, D., Fletcher, J. and Nelson, K., ‘Public policies for managing urban growth and protecting open space: policy instruments and lessons learned in the United States’, (2004) 69 *Landscape and Urban Planning* 271.

<sup>139</sup> Ibid, p. 273.

<sup>140</sup> Hollis, L.E., Fulton, W., *Open space protection: conservation meets growth management*. Discussion paper. Centre on Urban and Metropolitan Policy, (The Brookings Institution, Washington, DC, 2002).

<sup>141</sup> Alterman, R., ‘The challenge of farmland preservation: lessons from a six-nation comparison’, (1997) 63(2) *J. Am. Plan. Assoc.* 220.



and examined by Bengston et al are (1) public ownership and management, (2) regulation, and (3) incentives. This categorisation has direct transferability and application to the Australian situation, and each of these policy instruments are briefly considered in turn below.

An obvious – though costly – way to control growth on the fringe is through public acquisition of land. The growth management task may well have been made easier if Australian cities such as Sydney had a leasehold system similar to Canberra's, or at least that strategic parcels of fringe rural land were acquired by government and held in rural leasehold until (if at all) converted to urban use. In the case of Canberra, some of the benefits of more effective planning made possible by public ownership are quite visible:

Public ownership of land has allowed Canberra's planners to coordinate development with the provision of services and facilities. It has also permitted planners to retain a substantial portion of the land in greenbelts and other forms of open space. Public land ownership means that it is less expensive to build and extend roads, bicycle paths, recreation areas and utility networks because there is no need to purchase land. Moreover, charges for the use of land allow the public sector to recoup a large part of the cost of providing services and facilities.<sup>142</sup>

In the absence of actual acquisition of land by government, acquisition of development 'rights' pertaining to that land is a viable alternative, through a system of purchase or transfer of development rights. This option which recognises and seeks to work with the notion of property rights is strongly advocated by several overseas writers such as Pruetz and Standridge, Wiebe and Meinzen-Dick, and Levinson.<sup>143</sup> In Australia, purchase and transfer of development rights has been advocated as a policy response for preserving rural landscapes by Sinclair and Bunker.<sup>144</sup>

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<sup>142</sup> Bourassa, S., Neutze, M. and Strong, A., 'Managing publicly owned land in Canberra: Rural to urban change of use' (1996) 13(4) *Land Use Policy* 273 at 275.

<sup>143</sup> Pruetz, R. and Standridge, N., 'What Makes transfer of Development Rights Work?: Success Factors from Research and Practice' (2009) 75(1) *Journal of the American Planning Association* 78; Wiebe, K. and Meinzen-Dick, R., 'Property rights as policy tools for sustainable development' (1998) 15(3) *Land Use Policy* 203; Levinson, A., 'Why oppose TDRs? Transferable development rights can increase overall development' (1997) 27 *Regional Science and Urban Economics* 283.

<sup>144</sup> Sinclair, I. And Bunker, R., 'Planning for rural landscapes', in Thompson, S. (ed.) *Planning Australia; An overview of urban and regional planning* (Cambridge University Press, Port Melbourne, 2007).



Overseas experience in relation to the deficiencies of regulatory tools *used in isolation* is instructive, and appears to mirror Australian experience. The effect of different regulatory options has been tested in the Barnegat Bay watershed, located in southeastern New Jersey, which has experienced urbanisation pressure from the New York City and Philadelphia metropolitan regions.<sup>145</sup> Several ‘build-out scenarios’ or urbanisation models, were projected for each of the regulatory ‘alternatives. The scenarios were: (a) *current regulations scenario* based on current municipal zoning, state government regulations and existing protected open space; (b) *down zoning scenario* involving an increase in the minimum lot size, utilising the current regulations scenario but with the minimum lot size of future residential development outside sewer service areas forced to be at least 1.3 hectares; (c) *large buffer scenario* involving the down zoning scenario with the undevelopable buffer zone around all freshwater wetlands and streams increased to 91 metres and the buffer zone around all tidal areas increased to 152 metres; and (d) *open space scenario* consisting of the down zoning scenario with an aggressive plan to protect 100 open space sites identified as important to protect in the watershed, representing unique or critical habitats.

The results of the analysis indicated that there would be significant changes by build-out in the Barnegat Bay watershed. The potential for the population to exceed levels that cannot be supported by the current water supply was the most pressing problem identified in the analysis. Significantly,

There was comparatively little difference between the results of the current regulations and the three alternative regulatory scenarios examined, suggesting that alone none of the approaches are sufficient to limit the impacts of future growth on water or terrestrial resources. These results are most likely due to the relatively low percentage of land affected by the buffer zone and open space scenarios, with the potential development in most of the watershed no different than that allowed under current regulations.<sup>146</sup>

Accordingly, it was suggested that incremental regulatory responses such as these, while within presently politically acceptable limits, were inadequate in the long-term and more radical zoning and/or mitigation approaches were necessary. It was

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<sup>145</sup> Conway, T. and Lathrop, R., ‘Alternative land use regulations and environmental impacts: assessing future land use in an urbanising watershed’ (2005) 71 *Landscape and Urban Planning* 1.

<sup>146</sup> *Ibid*, p. 12.



concluded that while holistic watershed-based management represented a promising approach to incorporate ecological information and goals into land use planning for catchment protection, if ineffective management actions were adopted then the whole exercise was doomed to failure.

A more focused regulatory approach is to ascertain the limits (e.g. natural resource constraints, including biodiversity conservation) to development on the fringe and thence to implement appropriate policies to ensure this outcome. Jackson and O'Connor for example, suggest a policy of *limiting development* using a combination of development control, user-pay principles and a quasi-green belt, with only development presently in the pipeline allowed to proceed.<sup>147</sup> This mechanism of an urban growth cap or boundary has had some application in the US. Washington State, for example, has attempted to deal with the issue of sprawl through the use of urban growth boundaries established on a county-wide basis.<sup>148</sup>

Support for the use of various planning and financial incentives as a growth management tool has grown as concern over the limitations of regulatory tools alone have become apparent. In the case of NSW for example, questions have been raised about the effectiveness of the instruments that have been generally used to control the subdivision of agricultural land for hobby farms, which is reputed to be a significant cause of the loss of productive and prime agricultural land. In particular, the use of subdivision control such as minimum allotment sizes, as a means of curbing land losses has been queried.<sup>149</sup> It has been argued that while there may be reasons such as servicing costs, visual blight and land use conflicts which justify the imposition of minimum allotment controls on rural land subdivision in some rural areas of NSW (notably the coastal and tableland regions), loss of land from agriculture is not a reason for imposing such restrictions.<sup>150</sup> That is, the maintenance of land in productive agricultural use will not be ensured by traditional command and control methods, such as minimum allotment size, alone:

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<sup>147</sup> Jackson, above n 55 at p. 94.

<sup>148</sup> Robinson, above n 42, p. 53.

<sup>149</sup> Hawkins, C., above n 93.

<sup>150</sup> Bowie, I., above n 90, p. 227.



While the policies developed by land use planners have been ostensibly concerned with protecting farmland it is not clear how the instruments used generally might ensure a land structure which will ensure viable commercial agricultural units, as distinct from simply keeping land in agriculture. Minimum areas for subdivision purposes are too small generally to relate to viable commercial agricultural units; restrictions on the use of prime agricultural land seldom reflect the economic potential of such land; and the performance standards used widely are generally unrelated to the needs of agriculture. The fiscal measures seen as necessary to promote more efficient land structures are not used. Thus the effect of the instruments being used may be to perpetuate an existing land structure and to lock areas dominated by small holdings into part-time agriculture, because little incentive is given to land holders to restructure their agricultural operations”.<sup>151</sup>

This observation is corroborated by the types of policy solutions suggested by others who have examined the problem of the loss of agricultural land through suburban and exurban development. Subdivision controls have been described as generally tending only “to document and legitimise that which they were intended to prevent – the loss of agricultural land to non-agricultural uses.”<sup>152</sup> Because of its unpopularity and doubtful effectiveness, subdivision control alone should give way to alternative controls if good quality land is to be kept for agricultural production in the long term. This may include a relaxation of subdivision controls in some instances, but a concomitant tightening of dwelling entitlements on rural land. There is a clear need to guide, through the planning process, market forces if the better land in agriculture is to be retained and non-agricultural uses directed to poorer land. Market forces are quite blind, in that they do not guide those wanting a rural residential lifestyle away from the most productive land.

On a broader level therefore, it is apparent that ecologically sustainable development in general – and biodiversity conservation on private lands in particular – cannot be achieved by traditional planning approaches that focus on development control or that emphasise regulatory means alone. A variety of approaches and mechanisms (for example, bioregionalism, indigenous and private protected areas, voluntary and binding conservation agreements, covenants, revolving funds and financial incentives

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<sup>151</sup> Ibid, pp. 226-227.

<sup>152</sup> Hawkins, above n 93, p. 62.



that reflect the need for active management) must also be considered and used where appropriate.<sup>153</sup>

Here it must be emphasised that an approach that relies solely on the national parks system to achieve biodiversity and habitat protection is likely to be inadequate to achieve this goal. In part, this is because the biodiversity and environmental quality of protected natural areas such as national parks (both overseas and in Australia) have been found to be under threat from processes such as adjoining urban development. In the case of the Greater Yellowstone ecosystem in the US for example, it has been found that the more productive farmlands and biologically diverse lowland riparian habitats bordering the parks have experienced disproportionate levels of residential development, potentially eroding the quality of the lowland habitats most used by park species. In order for this region to maintain a balance between future growth and environmental quality, it has been suggested that planning practices such as zoning and the purchase of development rights will become increasingly important.<sup>154</sup> While zoning alone cannot guarantee that land is put to desired (that is, permitted) uses, it can help ensure that undesirable (that is prohibited) ones do not occur. In this respect it is significant to note that, despite high rates of development and population growth, 15 of the 20 counties in the Greater Yellowstone ecosystem have no county-wide zoning.

Effective planning for biodiversity conservation in Australia has tended to concentrate on protected areas – that is, national parks, wilderness areas, nature reserves and so on – but it must now extend beyond their borders. The *National Strategy for the Conservation of Australia's Biological Diversity* has recognised that:

Australia's biological diversity and the threats to it extend across tenure and administrative boundaries. At present more than two-thirds of Australia (some 500 million hectares) are managed by private landholders ... The conservation of biological diversity is best achieved in-situ and requires integrated and consistent approaches across freehold and leasehold and other Crown lands.<sup>155</sup>

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<sup>153</sup> Figgis, above n 34.

<sup>154</sup> Gude, above n 40, pp. 146-7.

<sup>155</sup> Department of the Environment, Sport and Territories, *National Strategy for the Conservation of Australia's Biological Diversity*, (Australian Government Department of the Environment and Heritage, Canberra, 1996), p. 11, <http://www.deh.gov.au/biodiversity/publications/strategy/cover.html>, viewed 22 June 2011.



In terms of the challenge of managing urban growth around national parks – a particularly apposite matter given the extent of such land in and around Sydney – a suite of targeted mechanisms have been suggested.<sup>156</sup> These include the use of conservation covenants and appropriate comprehensive zoning controls, that is selection of zones that contain a raft of controls such as minimum subdivision size, limitations on land clearance, amount of fencing and use of building colours and materials, regulation of building location, controls on sewage disposal and restrictions on exotic pets. A further major tool recognised as forming part of an ideal solution to reduce or eliminate many threats is the necessity of a buffer zone around reserves with the aim of protecting parkland ecological and aesthetic values.

Support from academic and practitioner analyses therefore, for the desirability of a package of complementary growth management policy instruments, is evident. “One of the clear lessons from the growth management literature is that the use of multiple, reinforcing policy instruments is far more effective than relying on a single technique.”<sup>157</sup> As Porter states, “The hallmark of *effective* growth management ... is that these individual techniques are interlinked and coordinated in a synergistic manner rather than applied incrementally and individually” (emphasis in original).<sup>158</sup>

Indeed, reliance on a single mechanism or approach may produce perverse results. For example, in the absence of zoning and other techniques to protect open space, purchase of development rights or conservation easements may result in a patchwork of protected lands that will be a magnet for development on unprotected adjacent lands.<sup>159</sup> The evolution of ‘smart growth’ strategies in recent years – based on a set of diverse and reinforcing principles – is an implicit recognition of this lesson of utilising a suite of complementary tools. Urban management programs that attempt to balance growth while fulfilling economic, social and environmental needs are thus often termed ‘smart growth’ programs. Such programs may include a combination of approaches or may focus on a single approach.<sup>160</sup> Smart growth efforts therefore,

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<sup>156</sup> Coveney, above n 103, p. 208.

<sup>157</sup> Bengston, above n 138, p. 281.

<sup>158</sup> Porter, above n 50, p. 13.

<sup>159</sup> American Farmland Trust, *Saving American Farmland: What Works*, (American Farmland Trust, Northampton, MA, 1997).

<sup>160</sup> See, for example, Porter, D., *Managing Growth in America's Communities*, (Island Press, Washington, DC, 1997); Benfield, F., Raimi, M. and Chen, D., *Once there were greenfields: how*



typically integrate policy instruments such as strategic planning, incentives, regulations, public acquisition of open space, and educational programs.”<sup>161</sup> Thus, smart growth should include various incentives designed to reduce sprawl, such as regulatory controls on the pattern and density of development, establishing urban growth boundaries, restricting new residential development in agricultural areas, creating greenbelts, pacing new developments to match development of new infrastructure, restricting the numbers of new residential consents issued, instituting land preservation programs, and utilising tax incentives.<sup>162</sup>

Key lessons gleaned from the literature on the implementation of growth management policies include: (1) the use of multiple policy instruments that reinforce and complement each other is needed to increase effectiveness and avoid unintended consequences; (2) that administrative efficiency and other details of policy implementation – rather than the general type of policy – are critical in determining their effectiveness; (3) vertical and horizontal institutional and policy coordination are critical for successful growth management but are often inadequate or lacking, and (4) meaningful stakeholder participation throughout the planning process and implementation is the cornerstone of effective growth management.

The first of these ‘lessons’ – that various policy instruments and tools are needed for urban growth management – has been initially considered above and is discussed in more detail in Chapter 4. In terms of the other lessons, it is clear that “successful growth management efforts must take into account and coordinate with the policy actions of others.”<sup>163</sup> Indeed, the task of coordinating the actions of the different levels of government departments, agencies and non-governmental organisations, has been asserted to be at the heart of growth management.<sup>164</sup> Two dimensions of coordinating growth management initiatives may be distinguished: vertical

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*urban sprawl is undermining America's environment, economy, and social fabric*, (Natural Resources Defense Council, Washington, DC, 1999); Gillham, O., *The Limitless City: A Primer on the Urban Sprawl Debate*. (Island Press, Washington, DC, 2002).

<sup>161</sup> Ducker, R. and Owens, D., ‘A smart growth toolbox for local governments’, (2000) 66(1) *Popular Govern.* 29.

<sup>162</sup> Robinson, above n 42, p. 52.

<sup>163</sup> Bengston, above n 138, p. 281.

<sup>164</sup> Innes, J., ‘Implementing state growth management in the United States: strategies for coordination’, in: Stein, J.M. (ed.), *Growth Management: The Planning Challenge of the 1990s* (Sage, Newbury Park, CA, 1993).



coordination between policies at different government levels, and horizontal coordination among neighbouring local communities, regions or states. These crucial components of administrative efficiency and policy implementation, institutional and policy coordination, and stakeholder participation in the context of the urban growth management of Sydney are considered in greater depth in Chapter 6, as well as the State and local government case studies in chapters 7 and 8.

## **2.6 Conclusion**

A better understanding of the range of policy instruments available and the lessons that have been learned about designing effective growth management programs is vital for planners and natural resource policy makers. A number of solutions may be considered to address the problems of managing the natural resource and environmental impacts of urbanisation on the fringe. Planning agencies need to implement all potential solutions to growth management, as this diversity of policy response is likely to be more conducive to addressing the complex issues facing the rural-urban fringe rather than an ‘all eggs in one basket’ approach centred around reliance on one or two primary policy initiatives. In particular, to be effective in the context of natural resource (including biodiversity) conservation and environmental protection, urban growth management policies should ideally be based on the utilisation of a range of approaches and mechanisms. These include, for example, financial incentives for ongoing conservation management.

Here, command and control regulation alone is not sufficient, as it places a financial burden, including the possible loss of development or productive potential, on the private landholder. The private costs of the ‘public benefit’ of biodiversity conservation should be recognised and borne in part through funding assistance, provided either by developers through offset or other payments, or direct public funding. Such approaches seek to work with private landowners, harness the concept of property rights arising from land tenure, and acknowledge the deficiency of ‘command’ regulation as a singular tool. Aspects of private property, land tenure, property rights and consequential problems confronting planners, regulatory theory, ‘command’ regulation and ‘smart regulation’ are therefore considered in greater detail in the next chapter.



# 3

## PROPERTY RIGHTS, REGULATORY THEORY AND PROBLEMS FOR PLANNERS

### 3.1 Introduction

This chapter considers several significant interlinked issues relevant to contemporary urban growth management – private property; property rights; land tenure; regulatory theory; planning regulation and compensation and betterment; ‘command’ regulation; and ‘smart regulation’.

The distribution of land ownership, the transfer of land into private holding (either through freehold title or long-term lease) and the rise of property rights, have significant implications for planning – as an action of government regulating land use – and more particularly planning policy as it relates to growth management. This chapter seeks to demonstrate that efforts to regulate land use in order to manage urban growth in a way that protects natural resources and the biophysical environment, must take the factors of land tenure, private property and its attendant ‘rights’ into consideration. Growth management policies which do not do this, it is contended, are likely to fail or, at the very least, make natural resource and environmental protection efforts more difficult to achieve.

This chapter presents two opposing perceptions of property: one being the social nature of property, an interpretation property hotly contested by the second viewpoint on property



represented by the private property rights movement.<sup>1</sup> Appreciation of these competing views is fundamental to an understanding of the ongoing conflict between the regulation of land for public (including environmental) benefit on the one hand, and private property rights on the other which argues the case of *freedom from* government interference and the *freedom to* use and develop land by virtue of ownership. This conflict has implications for the approaches that governments take to managing land use, including urban development, for purposes of natural resource conservation and environmental protection.

Central to this chapter therefore is the concept of private property rights and its relationship with planning regulation. Property in land carries with it not only the exclusive right of access to the resources in question,<sup>2</sup> but also a number of other rights, including the right to exclude others from one's property, occupy and derive beneficial use, convey, and bequeath.<sup>3</sup> Yet the notion of the state 'restricting' such 'rights' should not, despite the protestations of the property rights movement, be an issue if the social origin of property is recognized and accepted. The role of the state in regulating property for the benefit of society – that is, the social nature of property – is crucial to this chapter and, indeed, to this thesis in terms of the power or capacity of the state to regulate urban development in the context of natural resource conservation and environmental protection. One consequence of this view is that, as MacPherson points out, the meaning of property – both as an institution and concept – is not constant, but has evolved in conformity with the needs of society.<sup>4</sup> This evolution of the meaning of property extends, it is submitted, to tackling modern environmental problems.

This chapter examines the theory of property expounded by Locke and Hobbes, and presents the case for the social nature or origins of private property as a basis for regulation of property by the state. The discussion highlights that – irrespective of the view taken on

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<sup>1</sup> For an analysis of these two competing views of property in the US context, which also includes a consideration of the crucial influence of English common law and political thought on property, see: Epstein, R.A., *Takings, private property and the power of eminent domain*, (Cambridge, MA, Harvard University Press, 1985); and Jacobs, H.M., 'Fighting over land: America's legacy ... America's future?', (1999) 65(12) *Journal of the American Planning Association*, 141.

<sup>2</sup> Fisher, D.E., *Natural Resources Law in Australia*, (North Ryde, The Law Book Company Limited, 1987), p 9.

<sup>3</sup> McElfish, J.M., 'Property Rights, Property Roots: Rediscovering the Basis for Legal Protection of the Environment', (1994) 24(5) *Environmental Law Reporter*, 10, 231. Raff summarises the western liberal concept of property ownership as a 'bundle of rights' comprising: the power to exclude others; the power to transfer ownership to someone else, or to encumber it in some way; and the right to beneficial use and enjoyment of the phenomenon over which ownership is claimed. See: Raff, M., 'Environmental obligations and the western liberal property concept', (1998) 22 *Melbourne University Law Review* 657 at 659-660.

<sup>4</sup> MacPherson, C.B. (ed.), *Property. Mainstream and Critical Positions*, (Oxford, Basil Blackwell, 1978), p 1.



property, property rights and planning controls – state action and regulation is at the heart of these concepts. A crucial argument in the context of the thesis is that the Lockean concept of private property does not allow for holistic environmental management.

Consequently the constitutional and statutory aspects relating to the protection of private property are considered, being the context for addressing the collision of property rights and planning regulation – and the problems this causes for both planners and the successful implementation of planning policies. Challenges may arise since planning, by its nature, traditionally involves regulation of land use through statutory means – that is through planning and environmental laws – which inevitably results in the imposition of restrictions on (in general) privately owned land. These restrictions can be unpopular with property owners – since their property rights may be fettered in a way which did not exist before.

The challenge for planners is to utilize tools that create the desired policy outcomes including permitting environmentally appropriate land use, while placating landowner concerns and claims for compensation and hence the potential impost on the public purse. An understanding of regulatory theory is required, as is a comprehension of the role of private property and its concomitant ‘rights’. Further an appreciation of approaches used to implement planning policy in various jurisdictions such as Britain and the United States (which are confronted with similar challenges) is instructive for planners in Australia seeking to implement policies aimed at managing growth and protecting natural resources in the context of property owners’ ‘expectations’ arising from urbanization.

Issues surrounding property ‘rights’ in particular are arguably a complicating factor that needs to be taken into account in formulating growth management – and broader land use planning – policies. To this end the chapter builds on this consideration of land tenure, private property and property rights and regulatory theory, to more fully examine these concepts within the context of planning regulation, takings or injurious affection, compensation and betterment, ‘command’ regulation and ‘smart regulation’. It is submitted that these matters are relevant for metropolitan planning since, unless they are addressed and incorporated into planning policy, efforts to achieve meaningful urban growth management are likely to be ineffectual.



## 3.2 Private property and its rights

The law recognizes a distinction between personal property ('chattels') and real property ('realty'). It is the latter that is of concern here: real property is basically land and buildings, or immovable objects.<sup>5</sup> Land is special because original rights of property exist permanently and inseparably in the Crown by virtue of the common law and any right in an individual person is derived from the Crown.<sup>6</sup> The real property market effectively deals in 'property rights' – also referred to as 'interests' – relating to land, rather than the land and buildings themselves, since it is not possible to hand these over in the same way as would be the case with movable goods (that is, personal property). Erroneously, in current usage, property is perceived as *things*, whereas in law, logic and in the academic literature, "property is not things but *rights*, rights in or to do things."<sup>7</sup> Once a society has made a distinction between property and mere physical possession (whether by custom or convention or law), it has in effect defined property as a right, in the sense of an enforceable claim:

To have a property is to have a right in the sense of an enforceable claim to some use or benefit of something, whether it is a right to share in some common resource or an individual right to some particular things. What distinguishes property from mere momentary possession is that property is a claim that will be enforced by society or the state, by custom or convention or law.<sup>8</sup>

At law, a number of rights, duties and liabilities may be associated with ownership of private property: these include arguably the primary right exclude others, the right to alienate or sell or encumber in some way, and the right to beneficial use (though this has never been unlimited, as evidenced in the tort of nuisance).<sup>9</sup> Importantly from a practical, political and

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<sup>5</sup> Butt, P., *Land Law*, (North Ryde, The Law Book Company Limited, 2nd ed, 1988), pp 62-63.

<sup>6</sup> Fisher, above n 2, p 8.

<sup>7</sup> MacPherson, above n 4, p 2.

<sup>8</sup> Ibid, p 3.

<sup>9</sup> The rights, duties and liabilities that may be associated with ownership of land or other forms of private property include:

- the right to possess, i.e. exclusive physical control of the object that is owned,
- the right to use the object for personal enjoyment,
- the right to manage, i.e. to decide how and by whom the object shall be used'
- the right to income derived from the use of the object by the owner or by others granted permission to use it,
- the right to the capital, i.e. the right to consume, waste, modify or destroy the object,
- the right to immunity from expropriation of the object
- the right to decide how the object will be sold, gifted or bequeathed,
- the absence of term, i.e. indefinite length in time of ownership,



policy perspective however, this legal definition of property rights may be quite different from the rights that property owners *mean* when they claim private property rights. These include, for example the:

- (a) right to alienate or sell,
- (b) right to exclude others from benefit or use,
- (c) right to exclude the state from possession or use,
- (d) right to use – some economic use should be available,
- (e) right to use without restriction.

It is this latter understanding of property rights – the right to use without restriction – which property rights advocates particularly in the United States demand.

Further adding to the disjuncture between law, perceptions and policy in relation to property rights, are the emerging views of property that are gaining increasing recognition in international legal scholarship.<sup>10</sup> One example of this emerging discourse relates to the notion of ‘partial interests’ in land: the fact that one person has property in an object does not prevent others also having property in the object (importantly, the notion of ‘partial interests’ is fundamental in the context of some market-based planning tools such as transfer of development rights and is discussed further in Chapter 4). A second example is the notion of the social nature of property, i.e. acknowledgment that property as “an institution created by the state is necessarily subject to the constraints imposed by the state on owners for the greater good, so that a person’s property in an object is the degree of power over the object that is permitted by the laws of the state.”<sup>11</sup> It is one instance of “such constraints imposed by the state on owners for the greater good” – in the form of planning regulation – which is examined in the present chapter.

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- the prohibition of harmful use, i.e. the owner’s duty to forbear from uses of the object that are harmful to others,
  - liability to execution, i.e. the liability to having the object taken away in repayment for debt, and
  - residuary character, i.e. the rules governing the reversion of lapsed ownership rights.

See: Becker, L.C., *Property rights: Philosophic Foundations*, (Cambridge, Cambridge University Press, 1977).

<sup>10</sup> Reeve, I., *Property Rights and Natural Resource Management*, (IRF Occasional Paper 2002/1, Institute of Rural Futures, The University of New England, Armidale, July 2002).

<sup>11</sup> Ibid, p. 4; Tan, P.L., ‘The changing concepts of property in surface water resources’. Paper presented at: *Futurescape 2002: Exploring the Interaction between the Environment, Economics and Society*, (Nature Conservation Council of New South Wales, Seymour Centre, Sydney, 29-30 April 2002).



### 3.3 Property rights theory

Property in its broadest sense has a central place in political and legal philosophy. Property has long been considered in political and economic thought as the primary goal and measure of freedom. “Property in this view is the material manifestation of freedom.”<sup>12</sup> As a consequence, it has been asserted that:

... there have been few societies in which the preservation of property has not been regarded as one of the supreme purposes of the law.<sup>13</sup>

John Locke (1632-1704), the great English political philosopher, cited as a main reason for creating governments and laws, the protection of private property:

The great and chief end of men’s uniting into commonwealths and putting themselves under government is the preservation of their property ... The end why they choose and authorize a legislature is, that there may be laws made, and rules set, as guards and fences to the properties of all the members of the society: to limit the power, and moderate the dominion, of every part and member of the society.<sup>14</sup>

Significantly from the perspective of this thesis, “according to Locke, property rights, having existed as a matter of natural right prior to the formation of the social contract, effectively survived the contract unimpaired,”<sup>15</sup> and so should not be restricted by subsequent government regulation or laws.

Thomas Hobbes (1588-1679), conversely, a positivist legal and philosophical thinker writing at the same time, saw as humanity’s ‘state of nature’ (that is, before the institution of government and laws), a situation of individual ‘warfare’ and aggression.<sup>16</sup> This could only be overcome by foregoing part of individual liberty and giving to the State authority to make laws which represented the sovereign will of its members. Thus, in Hobbes’ view of the state of nature, original insecurity could only be overcome by the formation of government and

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<sup>12</sup> Bell, M. And Lowe, P., ‘Regulated freedoms: the market and the state, agriculture and the environment’, (2000) 16 *Journal of Rural Studies* 285 at 288.

<sup>13</sup> Lloyd, D., *The Idea of Law*, (Hammondsworth, Penguin Books, 1981), p.146.

<sup>14</sup> Locke, J., *An Essay Concerning the True Original Extent and End of Civil Government*, (London, Everyman’s Library edition, 1953). First published 1690.

<sup>15</sup> Duncan, M., ‘Property as a public conversation, not a Lockean soliloquy: a role of intellectual and legal history in takings analysis’, (1996) 26 *Environmental Law* 1095 at 1124.

<sup>16</sup> Hobbes, T., *Leviathan*, Ed. R. Tuck (Cambridge & New York, Cambridge University Press, 1996). First published 1651.



laws, which then enabled the creation and accumulation of property. A similar positivist view of property was shared by Jeremy Bentham (1748-1832).<sup>17</sup> Bentham asserted that society defines property by reference to community standards and interests (which today would be reflected in environmental laws, for example).<sup>18</sup> Under the Benthamite concept of property, property laws define what owners may or may not do with their resources, which is to say that the rules or laws define their property rights.

In contrast to Hobbes, within Locke's 'state of nature' property exists in nature and is protected by the law of reason or the law of nature – so that there was far greater security than existed in Hobbes' state of nature. For Hobbes, property is subsequent to government, being created by the sovereign, whereas for Locke, both property and its protection exist before government, which raises the question: could not humans then continue in this fashion, that is, without government and laws (recognizing, of course, that private nuisance was necessary to address neighbour disputes)?<sup>19</sup> The answer to this question is that humans have a right to freedom, property and peace in nature, yet this is still insecure in that it is subject to the threat of invasion by others. Thus enjoyment of property is uncertain, and so government and laws are desirable for the preservation of private property. Irrespective of which view is preferred, a common point of both Hobbes and Locke (and other political philosophers and legal theorists) is that property is indeed at the very heart of social organization and law.

Private property thus formed the fulcrum around which the theory of English – and American – political and constitutional thought of the seventeenth, eighteenth and nineteenth centuries revolved. Legal expression of this tradition was found, for example, in the great eighteenth century jurist William Blackstone who, in his *Commentaries on the Laws of England* (1765), argued that property was the source of 'virtue' and knowledge, and thus only by possessing such was a *man* fit for parliament and suffrage. American constitutionalism, which was

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<sup>17</sup> In particular, Bentham, J., *Principles of Morals and Legislation*, Ed. W. Harrison, (Oxford, Basil Blackwell & Co., 1948). First published 1795.

<sup>18</sup> Frazier, T., 'Protecting ecological integrity within the balancing function of property law', (1998) 28 *Environmental Law* 53 at 61.

<sup>19</sup> The right to use and manage one's land as one saw fit was rooted in the English common law of the time (eighteenth century), but so also was the concept of protection from externalities. A land owner had the right to the 'quite enjoyment' of his property, that is, "the power to prevent any use of [a] neighbour's land that conflicted with his own ... enjoyment" (McElfish, J.M., 'Property Rights, Property Roots: Rediscovering the Basis for Legal Protection of the Environment', (1994) 24(5) *Environmental Law Reporter*, 10, 231.



developed from English thought, had as the basis of its ‘republican’ theories the notion that membership of a republic (that is, ‘citizenship’) was dependent on property, and thus that all free settlers should have property.<sup>20</sup>

The dualistic tradition of Lockean liberalism and classical republicanism thus pre-dates American constitutionalism since it is also evident in earlier English property law. For example, the ‘constitutional’ case against the attempts of the Stuart kings to control private property was made most forcefully by Sir Edward Coke, Lord Chief Justice of Common Pleas. Yet English property law continued to manifest a strong community-oriented component, with Coke officially sanctioning “even royal action that physically invaded private land – so long as there was benefit to the public at large.”<sup>21</sup>

In the US in particular, an extensive body of academic literature has been produced questioning the link between Locke’s theory of property and traditional constitutional and regulatory theories in America.<sup>22</sup> These scholars challenged the then prevailing intellectual consensus that the writers of the US Constitution were motivated solely by Lockean liberalism, with its focus on the individual, as the following example asserts:

The Lockean system was dominant at the time when the Constitution was adopted. His [i.e. Locke’s] theory of the state was adopted in Blackstone’s Commentaries and the protection of property against its enemies was a central and recurrent feature of the political thought of the day ... It is very clear that the founders shared Locke’s and Blackstone’s affection for private property, which is why they inserted the eminent domain provision in the Bill of Rights.<sup>23</sup>

Eminent domain “is the legal right to acquire property by forced rather than by voluntary exchange”.<sup>24</sup> However, this right is subject to the takings clause to the Fifth Amendment to the US Constitution which provides: “nor shall private property be taken for public use, without just compensation”, inserted with the adoption of the Bill of Rights in 1791. With the adoption of this phrase the Constitution formally recognized the existence of private

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<sup>20</sup> Gilreath, J., (ed.), *Thomas Jefferson and the education of a citizen*, (Washington, DC, Library of Congress, 1998); Jacobs, H.M., ‘Fighting over land: America’s legacy ... America’s future?’, (1999) 65(12) *Journal of the American Planning Association*, 141.

<sup>21</sup> Duncan, above n 15, p 1134.

<sup>22</sup> Ibid, p 1137.

<sup>23</sup> Epstein, R.A., *Takings, private property and the power of eminent domain*, (Cambridge, MA, Harvard University Press, 1985), pp 16, 29.

<sup>24</sup> Munch, P., ‘An Economic Analysis of Eminent Domain’, (1976) 84 *J. Pol. Econ.* 473 at 473.



property.<sup>25</sup> From the point of constitutional theory therefore, “the critical point is that Locke, and those who followed him, thought he did justify private property.”<sup>26</sup>

However, a majority of recent academic research has argued instead that the American legal tradition in relation to private property has been one of accommodation and evolution of two competing views – Lockean liberalism on the one hand and classical republicanism with its more communitarian and social philosophy on the other. Here it has been submitted that preeminent figures such as Thomas Jefferson, James Madison (author of the Bill of Rights, the name given to the 1791 amendments to the US Constitution ratified by Congress), John and Samuel Adams, and Benjamin Franklin were also inspired by the classical republicanism of Aristotle – and the consequential social philosophy of St Thomas Aquinas. This classical republican or commonwealth view emphasized notions such as civic virtue, property as involving a ‘social right’ or duty rather than a private right, and the subsequent responsibility to ensure that property is used for the good of the community at large – thereby obligating government to regulate its use. Pertinently, recognition of the wider obligations implicit in the owner’s right to make beneficial use and enjoyment of property ownership is essential in the deliberations of contemporary planning and environmental legislation: indeed the rationale and framework of environmental protection and natural resource conservation through law is “demanded by the social obligations inherent in the social privilege of owning property.”<sup>27</sup>

From the perspective of a key element of this thesis – namely planning regulation over property – what this means is that the ‘bundle of sticks’ or rights constituting property “is defined in part by prevailing limitations on use ... thus, the laws governing property have been modified regularly to reflect the changing nature of society”<sup>28</sup> Indeed, it is contended that Locke himself saw the need for private property to bow to social needs:

For it would be a direct contradiction for any one to enter into society with others for the securing and regulating of property, and yet to suppose his land, whose property is

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<sup>25</sup> Jacobs, H.M., ‘Fighting over land: America’s legacy ... America’s future?’, (1999) 65(12) *Journal of the American Planning Association*, 141 at 143.

<sup>26</sup> Epstein, above n 23, p 12.

<sup>27</sup> Raff, M., ‘Environmental obligations and the western *liberal* property concept’, (1998) 22 *Melbourne University Law Review* 657 at 659-660.

<sup>28</sup> Goldstein, J.H. and Watson, W.D., ‘Property rights, regulatory taking, and compensation: implications for environmental protection’, (1997) 15(4) *Contemporary Economic Policy*, 32 at 33-34.



to regulated by the laws of society, should be exempt from the jurisdiction of that government to which he himself, and the property of the land, is subject.<sup>29</sup>

This interpretation of the social nature of property is contested by the property rights movement. The theoretical origins of the property rights movement is purported to be found in the writings of Locke, who stated that property rights precede government and are inviolable.<sup>30</sup> The property rights movement, which is very much stronger in the United States than in Australia or Britain, embodies an intense disagreement that exists over how to weigh the public interest against private property rights. It has been described as constituting possibly “the most significant land use and environmental movement in the United States in recent decades.”<sup>31</sup> Private property rights proponents believe that, through policy and regulation, one of the foundational contracts upon which the US was founded, is being undermined.<sup>32</sup> The foundational legal perspective of the property rights view on the matter is provided by Epstein,<sup>33</sup> who does not disagree with the historical events as presented by those advocating the social nature of property, “but suggests that in all such instances, owners should have been compensated for the taking of their property.”<sup>34</sup>

The more recent view in academic research argues that the property rights advocates base their claims on a radical premise that has never been part of American law or tradition – that a private property owner has the absolute right to the greatest possible profit from that property, regardless of the consequences of the proposed use on other individuals or the public generally (in terms of nuisance, waste or public health, for example):

The rhetoric of these advocates indicates a willful ignorance of the social function of property: to bind us together as a society and culture, as well as to provide the basis for the maximal individual exclusion of others. To see property’s exclusionary role as its principal function is to misunderstand that property rights have always created webs of responsibility between owners and non-owners. At its most basic, this function is described in the Latin phrase *sic utere tuo, ut alienum non laedus* (one should use his property as not to limit the rights of others). This maxim describes an immediate, substantial, and basic limit to property rights. The absolutism at the heart of the popular expression of the modern property rights movement was never part of

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<sup>29</sup> Locke, J., *The second treatise of government*, Ed, T.P. Peardon, (Indianapolis, Bobbs-Merrill Educational Publishers, 1952). First published 1690.

<sup>30</sup> Stein, L., *Principles of Planning Law*, (South Melbourne, Oxford University Press, 2008), p 6.

<sup>31</sup> Jacobs, above n 25, p 141.

<sup>32</sup> Ibid, p 141.

<sup>33</sup> Epstein, above n 23.

<sup>34</sup> Jacobs, above n 25, p 147.



the jural relations described by the law of property ... The history of property rights in this country reflects this community regarding function but has been largely forgotten or ignored in the current debate.<sup>35</sup>

A fundamental notion distinguishing the two views in this debate in relation to land is the social dimension of 'ownership'. By this is meant the "clear historic reality that individuals own and control assets, whether land or otherwise, only at the implicit consent of all those in the society."<sup>36</sup> Here "lies the basis for understanding the evolving content of rights in any social setting. Rights in land were granted to individuals by the polity because of the larger social benefits to arise therefrom."<sup>37</sup> The notion of social consent with respect to the holding of private property has been demonstrated by the remark that:

Property was to be an aid to creative work, not an alternative to it ... The law of the village bound the peasant to use his land, not as he himself might find most profitable, but to grow the corn the village needed ... Property reposed in short, not merely upon convenience, or the appetite for gain, but on a moral principle. It was protected not only for the sake of those who worked and of those for whom their work provided. It was protected, because without security of property, wealth could not be produced or the business of society carried on.<sup>38</sup>

Locke's view of property has been criticized for being based on the atomistic, individualized view of nature of the seventeenth century scientific revolution, which fundamentally clashes with modern scientific understanding that the world, animate and inanimate, is holistic in nature. In practical terms however, it has mattered little that many legal academics have argued that the Lockean view of property rights is outdated (both in respect to scientific and more particularly environmental knowledge), or that it was but one of the discourses evident in English and American constitutional thought, or that it was not, for example, the primary view expressed in landmark US court decisions throughout the nineteenth century and much of the twentieth century relating to government regulation of property. What is more significant is that in recent times "Locke's philosophy is being lauded in conservative political circles as a means to undermine environmental legislation, which is based on modern scientific knowledge that nature is an interconnected whole."<sup>39</sup> Property rights

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<sup>35</sup> Torres, G., 'Taking and giving: police power, public value, and private right', (1996) 26 *Environmental Law* 1 at 5.

<sup>36</sup> Bromley, D., 'Constitutional political economy: Property claims in a dynamic world', (1997) 15(4) *Contemporary Economic Policy* 43 at 45.

<sup>37</sup> Ibid, at p.46.

<sup>38</sup> Tawney, R., *The acquisitive society*, (Brighton, Wheatsheaf Books, 1982), p 139.

<sup>39</sup> Duncan, above n 15, p 1095.



challenges to modern environmental and planning regulation has resulted in planning authorities in the US generally having to take an approach to regulation that is more cognizant of these ‘rights’.

The foregoing analysis indicates a strong conceptual linkage between private property, property rights and law. As well as protecting freedoms such as the rights to, and accruing from, property, law also inevitably involves an element of regulation or control. Clear connections may also be traced between concepts of property, freedom and regulation. It is the state that guarantees and protects property rights. Unavoidably, it does this through regulation. Here, two forms of state regulation may be distinguished – negative regulation and positive regulation – regulation that prevents interference: *regulation-from*; and regulation that enables interference: *regulation-to*.<sup>40</sup>

Property rights advocates generally only recognize positive regulation as regulation, for example as when the state passes environmental or planning laws. But the failure to pass such laws, or the removal of such laws, is no less acts of regulation: *negative* regulation. Such action by the state means that many groups in society – such as affected residents and environmental groups – will find that their freedoms or ‘rights’ are just as restricted as those of property owners by positive regulation. The Lockean tradition of property existing prior to the state and law, and so representing the absence of restraints, sees the essence of property as freedom from interference from others, including the state. This view overlooks however, that often state action (that is laws or regulation) is required to establish or maintain freedom from interference – that is, the Lockean view requires negative regulation. Hobbes, however, saw this matter differently, in that without the state there could be no property: the state has to exist prior to property, not least in bestowing the ability to seek redress for grievances such as theft of property. The Hobbesian position thus represents a positive view of freedom in which property depends on the ability to take action over others, via means of the state providing the freedom to take action in defence of property.

Logical flaws have been identified in Lockean property concepts. The first flaw relates to the position that property is a ‘natural right’ that exists prior to the existence of a civil society (state), and the consequential expression of property rights based on this view in the

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<sup>40</sup> Bell, above n 12, p 285.



contemporary debate on regulation of property. Lockean ideas encourage owners to insist that once they acquire their possessions the state must protect them. Thus, Lockeans deny the presence of the nation-state to the initial acquisition of property rights but then hold the nation-state responsible for keeping subsequent claimants or interferences at bay:

That is, Locke's theory encourages landowners to ask the state to protect their claimed property rights (if necessary by compensation with tax revenues), while at the same time denying that the state was pertinent to the granting of those property rights in the first instance. This is asking a great deal of any government and of its citizens who must eventually underwrite, via their taxes, compensation schemes.<sup>41</sup>

Arising from this first flaw in Lockean property concepts of holding the state responsible for the protection of property rights once acquired, is the second flaw in Locke's theory which relates to the present debate on the regulation of property. Locke's claims of insisting that the state must protect property rights, including from regulation through compensation if necessary, does not allow for *holistic* environmental management – which is a crucial argument in the context of this thesis.

The third flaw in Lockean property concepts concerns the belief that private property – once acquired by its owner – is a protector of individual liberty. Property rights in land cannot logically stand as a defense of liberty for the simple reason that not everyone has – or can hope to acquire – landed property. A final straw in the Lockean vision of property so popular in America (and finding growing expression in Australia) is the notion of 'absolute right' in land. This, simply, is an extraordinary, impossible claim, as the English historian R.H. Tawney remarks:

The State has no absolute rights; they are limited by its commission. The individual has no absolute rights; they are relative to the function which he performs in the community of which he is a member, because unless they are so limited, the consequences must be something in the nature of private war. All rights are conditional and derivative, because all power should be conditional and derivative. They are derived from the end or purpose of the society in which they exist. They are conditional on being used to contribute to the attainment of that end, not to thwart it.<sup>42</sup>

Several important consequences from this critique of the Lockean concept of property arise in relation to property rights and regulation. First, rights only have meaning when there is some

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<sup>41</sup> Bromley, above n 36, p 49.

<sup>42</sup> Tawney, above n 38, pp 50-51.



authority system – a ‘regulator’ – that agrees to defend a right-holder’s interest in a particular outcome. Second, the claim of liberty for the ownership of land comes from the ability of owners to require the state to come to their defense. Thus the upholding of property rights requires the exercise of state power – regulation or, more precisely, *negative* regulation – against other members of the same political jurisdiction. Third, as a consequence, a right involves a tripartite relationship that encompasses the object of interest – in this case land, the individual or group related to that interest, and all others who have a duty to respect that right. This is summed up in the following observation:

Property rights are triadic relationships in which an owner and the rest of society have an implicit contract (“yes, that is yours”) as long as ownership serves a socially useful purpose. When a particular manner or ownership of specific assets or circumstances ceases to serve the larger society, then the nature and scope of that ownership will change.<sup>43</sup>

What this discussion highlights is that, irrespective of the view taken on property, property rights and planning controls – *state action or regulation (whether taking its negative or positive forms) is at the heart of these concepts*. There is a fundamental social construct or connection between property, property rights and regulation. All three concepts must be understood as a holistic, socially-based triumvirate.

### 3.4 Property rights and the common law

One point evident from the above discussion is that property rights are a creation of government.<sup>44</sup> One does not have an unfettered use of one’s property;<sup>45</sup> property rights are not inalienable and never have been: “they are a creature of the social compact, and they evolve with the changing nature of society.”<sup>46</sup> Nonetheless, the area of common law (that is law developed by the courts) concerned with property or land laws has, within the limits

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<sup>43</sup> Bromley, above n 36, p 51.

<sup>44</sup> Daniels, T.L. and Bowers, D., *Holding Our Ground: Protecting America’s Farms and Farmland*, (Washington, D.C., Island Press, 1997), p 32.

<sup>45</sup> This is certainly the formal position, subject to constitutional constraints under s 51 of the Australian Constitution. However, there has been a long tradition of limited intervention by government before the advent of planning statutes, as recognised by Blackstone in his *Commentaries on the Laws of England*. The notion of limitations only being those recognised by the courts, and not additional limitations mandated by government, is a cultural rather than a legal phenomenon.

<sup>46</sup> Goldstein, above n 28, p 33



outlined below such as nuisance and covenants and easements, generally recognized and protected these rights:

Traditionally, private property has been associated with the owner's legally enforceable rights to exclude others from the benefit or use of the land ... [however] it is one thing to say that owners should be able to stop other people coming onto their privately owned land and carrying out their own projects; it is going much further to say that owners should be able to do what they like on the land, regardless of the effects on adjacent landholders or the natural environment.<sup>47</sup>

Thus the ideology of 'private property' discussed above at length above, enforceable through the common law, has also been subject to certain provisos. In particular, the common law has always recognized that restrictions – through public and private nuisance – could be placed on the use of private property in cases of public interest and adverse effect on adjoining landowners. Common law restrictions on property in the form of covenants and easements, which are voluntary in nature, have also been utilized to achieve planning objectives or to impose built form controls, particularly prior to the rise of statutory based planning, building and subdivision controls during the course of the twentieth century.<sup>48</sup>

The ancillary, supplementary (but, it must be emphasized, useful) role of common law in the system of natural resources law created largely by statute has been described in the following terms:

The dimension emphasized by natural resources law is the conservation, use or development of land and land related substances ... The common law has made only a limited contribution to this aspect of land law and the impetus for the creation of a natural resources legal system has come from legislation. In bringing this about, the legislation has not only recognized the existing doctrines of the common law but also adapted them to new circumstances and introduced novel approaches where existing principles have proved inadequate.<sup>49</sup>

Even with the spread of forward planning and statutory planning controls such as zoning and development standards to regulate development, statutory recognition of covenants and easements has been maintained, pointing to the valuable role played by these common law tools at the interstices of regulatory-based statutory planning systems. In NSW for example,

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<sup>47</sup> Farrier, D. and Stein, P., *The Environmental Law Handbook*, (UNSW, Sydney, Redfern Legal Centre Publishing, 4th ed., 2006), p 9

<sup>48</sup> See Farrier and Stein, above n 47, p.40, who describe the use of restrictive covenants as "planning by private agreement".

<sup>49</sup> Fisher, above n 2, pp 3-4.



statutory expression of the traditional role of easements as restrictions to user is found in the *Conveyancing Act 1919*, which extended their operation into positive covenants following an amendment in 1986.<sup>50</sup> The NSW Land and Environment Court has, in certain circumstances, also supported the imposition of conditions of development consent requiring registrations of restrictions to user under the *Conveyancing Act*.<sup>51</sup> Generally, this has been in situations where the Court deems it essential to alert a potential buyer of significant restrictions that apply to land. More recently, covenants have been utilized in more innovative ways, such as to promote statutory-based natural resource conservation objectives, for example through the *Nature Conservation Trust Act 2001*.<sup>52</sup> Despite the continuation of the use of covenants and easements, it has been recognized as a matter of public policy that there should be limits to which broader public interests as represented in the intentions of a statutory plan can be thwarted by the private interests of particular landholders protected by a restrictive covenant. This policy question is resolved by a provision in the *Environmental Planning and Assessment Act 1979* that allows an environmental planning instrument to set aside covenants and easements to the extent necessary to permit development.<sup>53</sup>

The point of the above discussion is that even at common law, unfettered rights accruing to property has never been acknowledged: common law restrictions in the form of nuisance, and covenants and easements have been, and continue to be, valuable tools for the implementation of planning and natural resource management objectives.

### 3.5 Land tenure and planning regulation

In simple terms, in Australia today, land tenure is assumed to be either: (a) owned, freehold; (b) rented or leased from a freehold owner, or from the Crown; or (c) subject to claim by Aboriginal or Torres Strait Islander people.<sup>54</sup> Land ownership must be considered by the

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<sup>50</sup> *Conveyancing Act 1919* (NSW), ss 88B, 88E, 88K, 89. The *Conveyancing Act* now recognises both positive and negative restrictions to user. This constitutes a statutory modification of the common law position where only restrictive covenants were allowed. Amendments to the legislation in 1986 allow both positive and negative covenants to be made under sections 88D and 88E.

<sup>51</sup> Williams, P., 'Use of Conveyancing Act restrictions on user by local councils' (2001) 49 *New Planner* 32.

<sup>52</sup> *Nature Conservation Trust Act 2001* (NSW).

<sup>53</sup> *Environmental Planning and Assessment Act 1979* (NSW), s 28.

<sup>54</sup> Land subject to claim by indigenous people is basically of two types: (a) native title, which is recognised as a common law right following the judgment by the High Court of Australia in *Mabo v Queensland (No 2)* (1992) 175 CLR 1; and (b) a statutory right, for example in NSW under the *Aboriginal Land Rights Act 1983* (NSW), in respect of certain Crown Lands.



planner and natural resource manager since environmental planning law is largely about who has the right to make certain decisions concerning the use and development of land – which is often privately owned. This has implications for the implementation of planning policy and strategic planning, particularly in the context of claims of ‘takings’ or diminution of the economic value of land as a result of government action such as planning decisions and subsequent demands for compensation.

To gain a better understanding of property as well as its regulation at common law and statute, these need to be seen in their historical context. Traditionally, the two central doctrines of English land law have been the doctrine of tenures and the doctrine of estates. Both doctrines are interlinked – in that they relate to the holding (‘tenure’) of an interest (‘estate’) in property – and both are also linked to conceptions of ownership.<sup>55</sup> Possession of some of these property interests may constitute ‘proprietary rights’, i.e. rights enforceable through the courts, such as the right to enjoyment to one’s property without unlawful interference by others being actionable through nuisance.<sup>56</sup>

These and other concepts of property law that operate in Australia today (and also in North America for example), have their origin in feudal England, beginning with the Norman Conquest of 1066. With the Norman Conquest all land in England reverted to public ownership – that is, ‘Crown land’.<sup>57</sup> Grants of land were then, over subsequent years, given by the king so that land effectively moved from public to private ownership.<sup>58</sup> A similar transformation of land tenure occurred in Australia, where much Crown land has been transferred into private ownership.<sup>59</sup> In Australia, such Crown land was held in right of the States, reflecting their original status as separate British colonies – in other words these were lands of each colony vested in the Crown.<sup>60</sup> “In a sense ... all land in New South Wales is

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<sup>55</sup> See: Butt, above n 5, pp.64-73.

<sup>56</sup> “It is ... the possession of some interest in land which, at common law, is the key to preserving it free from any unlawful interference (ownership is merely a superior form of possession). Those property interests which the law will enforce and protect are known as ‘proprietary interests’. At common law only the holders of such proprietary rights can sue to protect their land from interference by others.” (Bates, G., *Environmental Law in Australia*, (Chatswood, NSW, Butterworths, 5th ed., 2002), p 49).

<sup>57</sup> Holt, J.C., ‘Politics and Property in Early Medieval England’, in T.H. Aston (ed.) *Landlord, Peasants and Politics in Medieval England*, (Cambridge, Cambridge University Press, 1987); Vines, P., *Law and Justice in Australia: Foundations of the legal system*, (South Melbourne, Oxford University Press, 2nd. ed., 2008).

<sup>58</sup> Holt, above n 57.

<sup>59</sup> See: Butt, P, above n 5, pp 593-595.

<sup>60</sup> Blackshield, T. And Williams, G., *Australian Constitutional Law and Theory*, (Leichhardt, NSW, The Federation Press, 5th ed., 2010).



‘Crown land’ in so far as the feudal doctrine of tenures underpinning Anglo-Australian law requires that all land be ‘held’ ultimately of the Crown.”<sup>61</sup> Historically the doctrine of tenure involved the Crown exercising “its sovereign power to grant an interest in land”<sup>62</sup>

Land law has its roots in the Middle Ages and the social system known as feudalism. “A clear illustration of the feudal influence appears in the term ‘estate in fee simple’. This is a term used by lawyers to refer to the ownership of land: a person who ‘owns’ land is said to have an ‘estate in fee simple’ in land ... the words ‘fee’ and ‘feudal’ are closely related.”<sup>63</sup> Feudalism involved not only a personal relationship between lord and man but also a land-holding relationship between lord and man arising from the social disorganization of the time and the need for personal security. Under this system the lord became the owner of the land and the vassal no longer owned land, “but *holds* the land *of* the lord – he has become a tenant (from the Latin, *tenere*, to hold); while his interest in the land so held, first called his *benefice*, is his *feudum*, anglicized in our modern law as *fee*.”<sup>64</sup>

Historically, the concept of *estates* – a word closely connected with the *status* of the tenant – referred to those interests which entitled a holder to *seisin* (i.e. possession) of the land itself. Freehold tenure to land was originally held only by one whose status was free; his interest in the land was called an estate of freehold. It became important however, to identify the *duration* of an estate, particularly in relation to inheritance. “To distinguish the various kinds of estates in accordance with their duration, each received a separate description which showed immediately its chief characteristic ... An estate which would descend to the grantee’s heir (which is the normal estate of feudal and modern times) was an *estate in fee*. Estates in fee could be unrestricted (‘simple’) or restricted (‘tailed’), depending on the category of heirs who could inherit; hence the terms ‘*estate in fee simple*’ and ‘*estate in fee tail*’.”

Thus, if one owns real property – a building or land – then this property is held by the owner in freehold tenure, being an estate (of duration) in *fee simple absolute*. “The estate in fee simple is the largest estate known to the law, ownership of such an estate being the nearest

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<sup>61</sup> Butt, above n 5, p 593.

<sup>62</sup> *Mabo v Queensland (No 2)* (1992) 175 CLR 1, 50 (Brennan J).

<sup>63</sup> Butt, above n 5, p 35.

<sup>64</sup> *Ibid*, p 37.



approach to ownership of the land itself which is consonant with the feudal principle of tenure.”<sup>65</sup> Conceptually, a landowner is vested with all necessary rights to treat land as a fully marketable commodity and any of these rights or interests may be separated and legally conveyed in the marketplace.<sup>66</sup> Rights over water, minerals, timber and access (e.g. utility and road easements) are examples of commonly transferred interests.

Nonetheless, “although land grants were made to the grantee ‘in fee simple’, it was early established that no grantee ‘owned’ land in any absolute sense; all land was held of the Crown in accordance with the feudal concept of tenure.”<sup>67</sup> In terms of estates and tenure in NSW, all titles originated in express documentary grant from the Crown. Thus the legally correct way to describe land ‘ownership’ (i.e. ‘freehold interests’,<sup>68</sup> or ‘estates of freehold’<sup>69</sup>) today is to say that it is held “as tenant in fee simple of the Crown in the right of the State of New South Wales”.<sup>70</sup>

The fundamental principle of English and Australian land law is therefore that only the Crown can have ‘absolute’ ownership of land. The Crown’s right with respect to its colonies stemmed from cessation (e.g. Hong Kong), conquest (e.g. New Zealand) or discovery and occupation/settlement (e.g. Australia). With the decision in *Mabo v Queensland (No 2)* (1992) 175 CLR 1, Justice Brennan of the High Court of Australia clarified, through the concept of *radical title*,<sup>71</sup> the position on the reception of English common law. This included

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<sup>65</sup> Butt, above n 5, p 90.

<sup>66</sup> Harvey, J., *Urban Land Economics*, (London, Macmillan, 4th ed., 1996).

<sup>67</sup> Butt, above n 5, p 43.

<sup>68</sup> Else-Mitchell, R., “‘Unto John Doe His Heirs and Assigns Forever’: A Study of Property Rights and Compensation” (1967) 5(1) *Australian Planning Institute Journal*, 5 at 5.

<sup>69</sup> *Mabo v Queensland (No 2)* (1992) 175 CLR 1 at 69 (Brennan J).

<sup>70</sup> *Commonwealth v Anderson* (1960) 105 CLR 303 at 325 (Windeyer J).

<sup>71</sup> In *Mabo v Queensland (No 2)* (1992) 175 CLR 1, the High Court, (Brennan J), ascribed to the Crown “a title, adapted from feudal theory, that was called radical, ultimate or final title ... The radical title is a postulate of the doctrine of tenure and a concomitant of sovereignty. As a sovereign enjoys supreme legal authority in and over a territory, the sovereign has power to prescribe what parcels of land and what interests in those parcels should be enjoyed by others and what parcels of land should be kept as the sovereign’s beneficial demesne ... But it is not a corollary of the Crown’s acquisition of a radical title to land in an occupied territory that the Crown acquired absolute beneficial ownership of that land to the exclusion of the indigenous inhabitants” (at 48). Upon “acquisition of sovereignty over a particular part of Australia, the Crown acquired a radical title to the land in that part ... Native title to land survived the Crown’s acquisition of sovereignty and radical title ... but the acquisition of sovereignty exposed native title to extinguishment by a valid exercise of sovereign power inconsistent with the continued right to enjoy native title. Where the Crown has validly alienated land by granting an interest that is wholly or partially inconsistent with a continuing right to enjoy native title, native title is extinguished to the extent of the inconsistency. Thus native title has been extinguished by grants of estates of freehold ... Where the Crown has validly and effectively expropriated land to itself and the appropriation is wholly or partially inconsistent with a continuing right to enjoy native title, native title is



the new property law that the British Crown brought with it for British settlers which presupposed that property interests were to be held on tenure from the Crown.<sup>72</sup> Yet the fact that even a fee simple owner of land is, in this theoretical sense, merely a tenant in fee simple (that is, a *feoffee* or tenant of the Crown) is not of practical significance today in terms of ‘ownership’. What it does indicate however is that the ultimate owner was the Crown: “that possession of all land in Australia (subject to native title) derives from the crown, and title to land that has not been transferred to private owners remains vested in the Crown.”<sup>73</sup> Further, the Crown has the legal right to revive or *resume* this ownership, subject to just compensation.<sup>74</sup> This consideration of land tenure thus illustrates the notion of original public control over land, and that it is private control which is historically the more recent concept. In this context, the rise during the twentieth century of planning laws and regulation over (private) land can be seen as one way of re-establishing some form of public control over land.

In large parts of rural Australia today, a high percentage of land is held under some form of Crown lease. Just less than 63% of the land in Australia is held under either freehold or Crown leasehold. Crown leasehold covers 42.1% of land, and 20.6% is private freehold.<sup>75</sup> However, with the exception of Canberra, in the settled and urbanized areas fee simple ownership is the norm. In the ACT land is held leasehold, with the ACT executive responsible for the management of the territory on behalf of the Commonwealth.<sup>76</sup> The right to seek the development of leasehold land may be included in the terms of the lease, or be gained with the consent of the lessor. In NSW conversely, the importance of private property within the planning regulatory context is clearly evident from the pattern of land tenure. A large part of the state has been transferred into private ownership (originally through Crown

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extinguished to the extent of the inconsistency” (at 69-70). Thus, coupled with this ‘radical title’ recognised in *Mabo* was an absolute sovereign power to determine the disposition of all land held under the Crown.

<sup>72</sup> Blackshield, above n 60, p 157.

<sup>73</sup> Bates, G., *Environmental Law in Australia*, (Chatswood, NSW, Butterworths, 5th ed., 2002), p 49.

<sup>74</sup> Just compensation is only required where the Commonwealth resumes, not the States. “There is nothing in the NSW Constitution that guarantees private property rights or provides for the payment of compensation if the government regulates land use, so that the state government is quite at liberty to regulate the use of privately owned land without paying compensation. Section 51(xxxi) of the Commonwealth Constitution, on the other hand, provides that any ‘acquisition’ of property by instrumentalities of the Commonwealth must be made on just terms” (Farrier, above n 46, p 9). With the lack of Constitutional recognition for compensation for compulsory acquisition of land in NSW, this has meant that the State Government has legislated specifically in this field, most recently in the form of the *Land Acquisition (Just Terms Compensation) Act 1991* (NSW).

<sup>75</sup> ACT Planning and Land Authority, *Technical paper 1 – Leasehold administration in the ACT. Its role in the planning system*, (Canberra, ACT Planning and Land Authority, ACT Government, 2005).

<sup>76</sup> *Australian Capital Territory (Planning and Land Management) Act 1988* (ACT), s 29.



land grants), or held in perpetual leasehold, with the latter having a sense of ‘ownership’ or title which “in the face of government ‘interference’ ... is no different from that of private landowners.”<sup>77</sup> At least 55% of the Eastern and Central Divisions of NSW (which together make up 60% of the State’s land area), have been transferred to private ownership, and this percentage is continuing to increase. The land tenure situation in the Western Division is very different however, with over 90% of land under Western Lands leases and licences.<sup>78</sup>

Some lawyers and planners have regretted the way in which so much Crown land was granted away or sold into private hands. Justice Rae Else-Mitchell for example has stated that:

The most significant feature of the development of the land laws in this country has been an extension or enlargement of the rights of tenants in fee simple and a correlative attenuation of the rights of the Crown. And, although the title to all land in NSW derives from the Crown ... the history of the colonial era and of land settlement in the nineteenth century shows how the rights of the landowner are reinforced to a point where the public origin of the owner's title was forgotten and the public interest disregarded.<sup>79</sup>

While converting freehold land into long leases with reversionary rights to the state has been considered in NSW,<sup>80</sup> it has not been adopted due to electoral unpopularity, with government relying instead on traditional town planning controls such as land use zoning, and compulsory acquisition where necessary.<sup>81</sup> Canberra is the only Australian city in which a leasehold system operates (generally over a lease term of 99 years). Despite numerous inquiries, several of which addressed the case for a change to a perpetual (999-year) leasehold or freehold, the leasehold model that has evolved in the ACT has been consistently supported. For example, the Langmore Report (1988) rejected leases in perpetuity as being fraught with

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<sup>77</sup> Farrier, above n 47, p 8.

<sup>78</sup> Ibid, p 7.

<sup>79</sup> Else-Mitchell, above n 68, p 6.

<sup>80</sup> Royal Commission of Inquiry into Rating, Valuation and Local Government Finance. *Report* (Sydney, Government Printer, 1967).

<sup>81</sup> Writing in 1967, Justice Rae Else-Mitchell opined: “It is not the existence of private property rights but the peculiar incidents of inheritable estates in land – freehold interests you may call them – as they have evolved in our society which present such obstacles to the implementation on the score of cost of so many planning proposals ... is it not apposite that we should be prepared to introduce a system of leasehold titles and by reducing estates in fee simple in land to terms of years, to diminish some of those property rights which for centuries have ensued from the grant of land [in freehold title] ...?” (Else-Mitchell, above n 67, pp 5, 11).



contractual difficulties and weakening the Government's control over the use of land,<sup>82</sup> whilst the Stein Report (1995) similarly rejected conversion to a system of leases in perpetuity (or freehold) because of the primacy of lease purpose clauses in controlling planning and development in the ACT.<sup>83</sup> Ironically, because leases are only very rarely terminated by the ACT Government, the result "is that leasehold in Canberra is in fact a more secure form of tenure than freehold elsewhere in Australia."<sup>84</sup> A major reason for this observation is that the Government "has always withheld sufficient land from development to satisfy future public needs",<sup>85</sup> and so the need to compulsorily acquire land is minimized.

In theory, Canberra's leasehold system is an ideal tool for the planning, development and management of its land. Through the existence of a leasehold system, governments responsible over the years for land development in Canberra have been able to pursue a number of key objectives. First, has been to ensure that the increase in value that occurs in land when it is converted to urban use is received by the government: that is, the '*unearned increment*' accruing from the gain in land value is captured by a '*betterment tax*' – two concepts important to urban growth management examined in more detail later in this chapter. The second objective has been the avoidance of excessive land prices, especially for housing, which is a public policy objective that has become more important in recent years. The third objective has been to use the clause in the lease agreement between the government and the lessee, which specifies the use(s) to which the lease may be put, as a means of land use control by ensuring that planned land uses are followed.

A further advantage of the leasehold system that has operated in Canberra is the positive effect it has had on property owner-driven land conversion pressures and urban development expectations. It has been observed that:

Elsewhere in Australia the profits that can be made from land development have resulted in strong pressures from land owners and developers to be able to use their land for the purposes that are more valuable than those shown in land use plans. In

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<sup>82</sup> Joint Sub-Committee on the Canberra Leasehold System, *Report on the Canberra leasehold system*, (Chair: J.V.Langmore), (Canberra, AGPS, 1988).

<sup>83</sup> ACT Board of Inquiry into the Administration of Leasehold, *Report into the administration of the ACT leasehold*, (Chair: The Hon. P. Stein), (Canberra, Publications and Public Communication, 1995).

<sup>84</sup> Bourassa, S., Neutze, M. and Strong, A., 'Managing publicly owned land in Canberra: Rural to urban change of use', (1996) 13(4) *Land Use Policy* 273 at 287.

<sup>85</sup> *Ibid*, p 287.



Canberra these pressures do not occur at the time of conversion of land from rural to urban uses because there are no private owners of rural land. Rural leases are only for 25 years and rural lessees have never seriously attempted to secure urban development rights.<sup>86</sup>

Canberra however, is the exception to the rule in Australian cities, where most land is privately owned in freehold title. While leasehold tenure may be desirable from an urban growth management perspective, widespread acquisition of land by government to be held in leasehold title is not practical or financially feasible in other Australian cities. However, a similar outcome could be achieved if rural land designated for urban development was first acquired by government, as is the case in Britain. Public acquisition of land required for urban development is further discussed as a growth management policy option in Chapter 4.

### 3.6 Acquisition of property rights

Government has the right to acquire privately owned land by compulsory process from two sources. First, under the notion of unrestricted sovereignty, as an incident of governing, the governing body has the right to take land – described in the United States as ‘eminent domain’, being the proprietary aspect of sovereignty.<sup>87</sup> The second is based on the feudal notion that the sovereign is able to take what is his, “an idea associated with reservation clauses in early Crown grants in Australia and thereby giving rise to the use of the term ... ‘resumption’”.<sup>88</sup> Yet some Australian planners and lawyers remain unconvinced of the efficacy of public ownership of land: “So far as history is concerned, public acquisition and ownership of land ... does not necessarily of itself produce good town planning.”<sup>89</sup> In this regard it should be noted that in NSW the *Land Acquisition (Just Terms Compensation) Act 1991*,<sup>90</sup> which deals with the procedures and compensation relating to acquisition by agreement or compulsory process, was amended in 2006 to permit an acquisition authority to review its future public land requirements and, if warranted, lift its designation of land for such purposes.<sup>91</sup> This amendment, by permitting strategic review and reassessment of land

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<sup>86</sup> Ibid, p 274.

<sup>87</sup> Ryan, P., *Urban Development Law and Policy*, (Sydney, Law Book Co., 1988).

<sup>88</sup> Ibid, p 276.

<sup>89</sup> Fogg, A., *Australian Town Planning Law. Uniformity and Change*, (St. Lucia, Brisbane, University of Queensland Press, 1982), p. 4.

<sup>90</sup> *Environmental Planning and Assessment Amendment (Reserved Land Acquisition) Act 2006* (NSW). Assented to 11 April 2006.

<sup>91</sup> *Land Acquisition (Just Terms Compensation) Act 1991* (NSW), s 27.



identified for public acquisition, helps ensure that only land contemporaneously adjudged as required for future public needs is actually acquired. Operation of the *Land Acquisition (Just Terms Compensation) Act 1991* is considered in more detail in Chapter 7.

Significantly however, acquisition of fee simple title is not the only acquisition option open to government seeking public control over land use. Acquisition of specific rights or partial interests can be a less costly means of establishing land use control. With real property the separation of rights is more usual than with personal property. The rights inherent in the ownership of fee simple absolute can be separated and transferred individually to other people. Property rights are thus often likened to “a bundle of sticks”.<sup>92</sup> Fee simple equates to the largest and most nearly complete bundle of sticks that one can have. Each stick represents some particular right or power, for example exclusive right of occupation and use, for example, by the grant of a lease by the owner (lessor) for a stipulated period and monetary sum to be paid by the lessee. Further, as a consequence of the varying degrees of (and lack of total), property ownership rights, it has always been possible for the Crown, in making a grant of an estate in fee simple, to make reservations out of the subject matter of the grant – for example the Royal metals gold and silver; petroleum; indigenous timber; and stone.<sup>93</sup> Thus the Crown can obtain ‘royalties’ in return for the grant of licences or leases to extract these natural resources from land.

Also arising from the concept of likening property rights to a ‘bundle of sticks’, comes the notion that one or more of these rights may be acquired by government or individuals:<sup>94</sup> for example the acquisition of ‘partial interests’ in the land in the form its development potential or ‘rights’. Partial interests – the individual sticks in the complex bundle of rights that constitutes land ownership – can be identified and traded separately, providing a mechanism for recognizing the range of claimants on a resource even within a system of formalized land tenure. In this sense the acquisition or transfer of partial interests or rights represent a return to a more traditional understanding of tenure and land use systems, which differentiated rights such as rights to draw water, graze livestock, produce crops, or build houses.<sup>95</sup> Further discussion of partial interests in the context of its application in urban growth management

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<sup>92</sup> Goldstein, above n 28 p 33; Daniels, above n 44, p 32; Torres, above n 35, p 14.

<sup>93</sup> See Fisher, above n 2, p 60.

<sup>94</sup> Daniels, above n 44; Stein, L., above n 30, pp 6-7.

<sup>95</sup> Wiebe, KD., and Meinzen-Dick, R., ‘Property rights as policy tools for sustainable development’ (1998) 15(3) *Land Use Policy* 203.



and natural resource conservation through tools such as purchase and transfer of development rights and conservation covenants and agreements, is provided in Chapter 4.

Generally in Australia however, short of compulsory acquisition or widespread use of acquisition of partial interests in land to replace the Crown's loss of direct proprietary interest in land, it has been necessary to re-establish public control by means of statute and regulation. Thus environmental planning legislation, for example, can be seen as having the effect of transferring certain sticks out of the bundle belonging to individual landowners and into the hands of government, or the community. As a result, typically when statutory planning controls are introduced, the right of landowners to do anything with the land that they desire (subject to the common law restriction that the ensuing activity is not a nuisance to adjoining landowners) is diminished.<sup>96</sup> "planning is a direct interference with these rights."<sup>97</sup> In the case of NSW, the State Parliament has extremely broad power to legislate under the NSW Constitution, including restricting the use and development of land. Under the *Constitution Act 1902*, the NSW Legislature has, subject to the provisions of the Commonwealth Constitution, "power to make laws for the peace, welfare, and good government of New South Wales in all cases whatsoever."<sup>98</sup>

Such diminution of the right to develop land or determine its use through regulation imposed by planning statutes, needs to be qualified however. The first qualification is based on the nexus between property and politics, and the role – indeed the power – which property ownership possesses in influencing the direction of public policy decisions that might otherwise place restrictions on the use of private property. Irrefutable evidence of this is seen in the political victory of affected property owners culminating in the abandonment of the proposed green zones in the south-west and north-west growth centres of Sydney. The second qualification relates to the legal convention (under the Commonwealth Constitution) and statutory requirement (in NSW under the *Land Acquisition (Just Terms Compensation) Act 1991*) that deprivation or acquisition of property can only be executed by government subject to "just compensation". A problem arises here however, as to what constitutes a deprivation of the use of property, and hence attracts compensation?<sup>99</sup> This is a vexing

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<sup>96</sup> Bates, above n 73, p 39

<sup>97</sup> Stein, L., above n 30, p 6.

<sup>98</sup> *Constitution Act 1902* (NSW), s 5.

<sup>99</sup> Stein, L., above n 30, pp 13-15.



contemporary planning problem for the urban growth management of Sydney in terms of the potential for compensation arising from the downzoning of land for environmental protection purposes, an issue of particular significance which is discussed at length later in this thesis. Clearly the resumption of land through compulsory acquisition constitutes the deprivation of the use of property. But at what point does the imposition of planning restrictions – the taking of one or more sticks out of the bundle of sticks of property rights – diminish the *economic* use of land to a point where compensation is payable? These issues are further examined below.

### 3.7 Regulatory theory and planning ‘command regulation’

“The most common form of public control of land use is restriction of private use by regulation.”<sup>100</sup> The defining character of ‘command’ regulation<sup>101</sup> is its obligatory nature – it involves an authoritative relationship between the individuals or groups being regulated and the government.<sup>102</sup> Regulation over the use and development of land has a long history that has established it as a normal ‘incident’ in the exercise of government power. Town and country planning as a function of government evolved initially in Britain as a response to the industrial revolution. Planning regulation was manifested, in historical sequence, in the public health codes dating from the mid nineteenth century, the housing codes from the late nineteenth century, and the planning codes of the early twentieth century.<sup>103</sup>

The role of planning has been described in the following terms:

Planning systems have at their core the regulation of uses to which land can be put and the regulation of developments which can be put on those lands. The underlying premise of planning is that there is a public interest in the types of land uses which can be permitted on various lands and the types of developments which can be constructed or erected on those lands. It reflects both the interests of neighbours and owners of adjoining properties as well as the broader community interests in land use and development.<sup>104</sup>

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<sup>100</sup> Harte, J., *Landscape, Land Use and the Law*, (London, E. & F.N. Spon, 1985), p 49.

<sup>101</sup> ‘Regulation’ is increasingly used in a much broader way to include any attempt by government to influence behaviour. Here regulation is being used in a narrower way to mean ‘command regulation’.

<sup>102</sup> Stone, A., *Regulation and Its Alternatives*, (Washington, D.C., Congressional Quarterly Press, 1982).

<sup>103</sup> Heap, D., *An Outline of Planning Law*, (London, Sweet & Maxwell, 9th ed., 1987).

<sup>104</sup> Whitehouse, J., ‘The relationship between mining and planning law in NSW’. Paper presented at the *Mining Law Short Course*, conducted by the Key Centre for Mines, the University of New South Wales, 12-16 July 1993 (UNSW, Kensington, 1993), p 3.



More specifically, in introducing the Local Government (Town and Country Planning) Amendment Bill 1945, the then Minister for Local Government in New South Wales, the Honourable J. J. Cahill (later Premier), indicated the then government's appreciation of the role of planning. He stated in his speech upon the second reading of the bill in the Legislative Assembly:

The principles of town and country planning may be stated simply as an attempt to regulate, in advance, the orderly management and use of land in town and country, so as to promote, for the greatest good of the greatest number, the improvement of community life and of the environment in which our people live, to enable the people to enjoy the benefits of social security, good health, safety, education, recreation, employment and shelter, good communications, public utilities and amenities. It has been said that man is the product of the environment in which he lives. Much has been said but little has been done, to improve the environment. This bill ... will provide the legislative means to effect such improvement.<sup>105</sup>

Pivotal to traditional town and country planning is the preservation and enhancement of existing amenities.<sup>106</sup> The concept of 'amenity' is central in both the legislation and the case law,<sup>107</sup> whilst "[T]he preservation and development of amenity ... form a basic objective of planning policy."<sup>108</sup> It has been described in the following terms:

The concept of amenity in town planning is wide and flexible; it is not confined to negative factors of freedom from disagreeable conditions but extends to the preservation of existing features which make a locality pleasant; and when coupled with likely future amenity must be taken to include the orderly development of locality so as to reduce those conditions which are disagreeable and to increase those which are pleasant.<sup>109</sup>

From its initial focus on the concept of amenity, modern planning has expanded and evolved its role in response to community changes since the Second World War to incorporate additional areas of public interest including the orderly and efficient provision of services; social planning concerns; and environmental concerns including the protection of the natural

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<sup>105</sup> New South Wales, *Parliamentary Debates*, Legislative Assembly, 13 February 1945, Vol. 176, pp.1767-1768.

<sup>106</sup> It should be noted however, that environmental planning, with its broader concern on ecocentric matters related to natural resources, ecosystems and environmental protection for example, departs fundamentally from traditional town and country planning with its narrower anthropocentric focus surrounding 'amenity'.

<sup>107</sup> Starke, J.G., *The Law of Town and Country Planning in New South Wales*, (Sydney, Butterworths, 1966), p 35.

<sup>108</sup> Cullingworth, J. & Nadin, V., *Town & Country Planning in the UK*, 13th edn., (London, Routledge, 13th ed., 2002), p. 165.

<sup>109</sup> *Humby v Woollahra Municipal Council* (1965) 10 LGRA 56 at 65.



environment, the conservation of heritage and the improvement of the quality of life.<sup>110</sup> In an observation directed to the British planning system, but equally applicable to the Australian case, it has been stated that:

...planning plays a central co-ordinating role in environmental management and resource allocation. It is by definition concerned as much with ecology as it is with economics, social sciences, land utilization and politics.<sup>111</sup>

Modern environmental protection and natural resource management is an even more recent phenomenon, dating from the 1960s and 1970s. However, it is not solely a product of the twentieth century: “complaints about pollution were being dealt with by the courts of common law as early as the fourteenth century, and anti-pollution legislation was on the statute book in the late thirteenth century.”<sup>112</sup> Early examples of action in relation to pollution, as well as nuisance law are also, of course, aspects or manifestations of concern with amenity.<sup>113</sup>

Planning systems in countries such as Australia, Britain and the US are founded on statutory law and, to varying degrees, delegated legislation, rather than common law.<sup>114</sup> In broad terms, the primary aims of planning are to provide for community needs, desires and facilities required; and to prevent or minimize negative externalities, such as land use conflicts. It is important to note that ‘planning’ consists of two components – strategic planning and development control. Within each planning jurisdiction in Australia an overarching strategic – that is, forward – planning framework operates at state, regional and local levels. Within this strategic planning framework, statutory – that is, legislatively based – planning

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<sup>110</sup> Whitehouse, J., above n 104, p 5.

<sup>111</sup> Booth, A., ‘The planning component’, in Roberts, R. and Roberts, T. (eds.) *Planning and Ecology*, (London, Chapman and Hall, 1984), p 8.

<sup>112</sup> Bates, above n 73, p 7.

<sup>113</sup> Perhaps the earliest English regulation significantly restricting the ability to develop land in a traditional town planning sense was a royal proclamation issued in 1580 by Queen Elizabeth I prohibiting the construction of new housing within three miles of the city of London. The proclamation was supplemented by an act of Parliament in 1588, by which landowners were prohibited from erecting any building on a tract containing less than four acres – the first large lot zoning regulation. Parliament codified the royal three-mile prohibition in 1592 and more detailed regulations akin to building regulations were promulgated before and after the Great Fire of 1666. “Considerable regulation also occurred in rural areas, much of it dealing with the complex problems of common lands and enclosures.” (Duncan, above n 16, p 1134.) Thus, both the Crown and Parliament from the later sixteenth century sought to protect the health and safety of London, as well as regulate in some way, the use of the countryside.

<sup>114</sup> See: Lyster, R. et.al., *Environmental and Planning Law in New South Wales*, (Leichhardt, NSW, The Federation Press, 2nd ed., 2009), p.2. However, as discussed earlier in this thesis, common law remedies such as nuisance and negligence sought through the courts and common law tools such as easements and covenants have a vital (and arguably growing) role to play in contemporary planning systems.



instruments regulating development may be prepared. Although strategic planning may occur outside the auspices of the primary planning legislation in each jurisdiction, these statutes establish the legal basis for the various statutory plans. There is usually a close connection between the two types of planning, as strategic planning usually feeds into, and is implemented by, statutory planning instruments. It is these instruments that contain many of the tools of the development control system such as zoning, development standards, heritage controls and reservation of land for future public purposes. Thus inherent in tools such as zoning is more than just development control – they are a product of strategic planning and an indication of the kind of development wanted, as well as the prohibition of development not wanted, in an area.<sup>115</sup>

By the term ‘development control system’ is meant the mechanisms and laws that are in place to control the use and development of land. Statutes and delegated legislation provide the framework for a regulatory-based development control system in which regulatory mechanisms such as land use zoning and development or planning standards play a crucial role. The planning systems in Australia are thus generally characterized as *regulatory-based statutory planning systems*. Thus the legislature, through statutory law, has intervened to create a planning system to regulate the use and development of land. Generally, these statutes are in the form of ‘enabling legislation’, which provide the statutory framework for the creation of more specific delegated legislation containing detailed development control provisions, for example land use zoning, development standards and subdivision and building controls.

Land use planning legislation empowers planning authorities (usually at the local level) to prohibit or restrict, through the need for permission, physical alterations to or changes in the use of land. The core of the planning – and more particularly development control – system, is land use zoning, “the device responsible for the ‘spatial allocation of land uses’: the selective placement of possible uses in some areas and not in others across a municipality or regional area.”<sup>116</sup> More formally, zoning may be defined as the production of legal ordinances which normally establish in particular areas (that is, ‘zones’) which uses are: permitted as of right; may be carried out only with consent; or prohibited. Typically, a

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<sup>115</sup> Williams, P., ‘Planning and the Legislative Framework’, in Thompson, S. (ed.) *Planning Australia*, (South Melbourne, Cambridge University Press, 2007).

<sup>116</sup> Stein, L., above n 30, p 9.



planning authority “has a broad discretion whether or not to grant permission and an equally broad power to attach conditions to a grant of permission ... [as] a means of imposing a code of land use law upon development within a locality.”<sup>117</sup>

Zoning of itself however, is not determinative of development, that is, it does not necessarily guarantee that permissible development proceeds. Normally zoning should be given weight so as not to undermine the integrity of the planning system, and so it would usually be expected that approval would be given to use land for which it is zoned (subject to acceptable environmental impacts). However, because of the history of the zoning of a site, which may have been imposed many years previously, and the need to assess a proposed development having regard to contemporary community and environmental standards, it may be difficult to simultaneously achieve both an environmentally acceptable and commercially viable use of land.<sup>118</sup>

In its 1973 report the Commission of Inquiry into Land Tenures was critical of land use zoning. The Commission of Inquiry concluded that:

Zoning is unsatisfactory as a means of land use control. It is negative or permissive rather than positive or compulsive in its effects, in that it can only prevent particular forms of land use and cannot require land to be developed and used in accordance with planning decisions made in the public interest.<sup>119</sup>

Further points of criticism of zoning made by the Commission in its 1973 report were elaborated in 1976. These were mainly procedural in character, and concerned matters such as the lengthy period that may be required to determine zones, the inflexible and legalistic nature of zoning, and the contention that zoning is not well understood by the public.<sup>120</sup>

Nonetheless, in Australia, zoning has long been, and remains, the basis of land use control. The system of planning law in this country based on the production of zoning schemes containing legal ordinances or instruments and zoning maps is essentially derived from the

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<sup>117</sup> Adler, J., *Development Control*, 2nd edn., (Sweet & Maxwell, London, 1989), p 1.

<sup>118</sup> *BGP Properties Pty Limited v Lake Macquarie City Council* [2004] NSWLEC 399 at 117-119.

<sup>119</sup> Commission of Inquiry into Land Tenures. *Report*. (Canberra, AGPS, November 1973), p 65.

<sup>120</sup> Commission of Inquiry into Land Tenures. *Final Report* (Canberra, AGPS, February 1976), p 37.



British *Town and Country Planning Act 1932*, and before that the Acts of 1925, 1919 and 1909. Since the introduction of the *Town and Country Planning Act 1947* however, there has been no ‘zoning’ in Britain in the sense that the term is understood in Australia (that is, the production of ordinances which establish the permissibility of uses in particular areas or zones). In Britain, the power of control – that is the requirement for permission to be sought for proposed development – exists by virtue of the Act, and exists independently of whether any plans have been prepared.<sup>121</sup>

### 3.8 Planning regulation, property rights and takings

Although the inviolability of property still remains an important value in Western legal systems, significant inroads have been made upon this principle. For example, the control by planning legislation of the uses to which land and buildings can be put, and powers of compulsory acquisition enabling authorities to acquire land from private owners without their consent, are accepted today as essential features of the state machinery for promoting the welfare of the community. Fundamental belief in the recognition of private property continues to the present day however, in the notion that property should not be arbitrarily acquired from private persons without adequate compensation.<sup>122</sup>

In Britain the position with regard to property rights – and hence any perceived ‘rights’ in relation to development of land – has been fairly clear-cut in terms of the power of government to regulate property. With the passing of the *Town and Country Planning Act 1947*, there was an “explicit intention to nationalize future development rights by requiring a valid planning permission before any development was carried out ... But to do so, it depended on a view of property and ownership which saw them as a concrete object and a unified bundle of rights respectively ...”<sup>123</sup> In terms of the earlier analysis in this Chapter, this view accords to seeing property as a ‘thing’ (rather than as ‘rights’ as argued by MacPherson), perceives these rights not being separated and conveyed as partial interests, and concurs with the positivist view of Hobbes and Bentham in that it is laws made by government or the community that defines property rights.

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<sup>121</sup> Auster, M., “Plans as Policy, or Plans as Law”, (1985) 3(1) *Urban Policy and Research*, 13.

<sup>122</sup> Lloyd, above n 13, p. 146.

<sup>123</sup> Booth, P., ‘From property right to public control: The quest for public interest in the control of urban development’, (2002) 73(2) *Town Planning Review* 153 at 167.



In the United States the protection of private property rights comes from the Fifth and Fourteenth amendments to the US Constitution, while the power to limit these rights comes from the Tenth Amendment. The Fifth Amendment requires a government to pay ‘just compensation’ to a landowner if it ‘takes’ private property (referred to as the ‘takings provision’ in the US Constitution):

Controversy may arise when a government regulation limits the use of private property. Property rights advocates say a regulation that reduces land value is a partial taking and the landowners should receive compensation, even if the land can still be put to a beneficial use.<sup>124</sup>

This is the problem of ‘regulatory takings’. The ‘property clause’ in the Fifth Amendment, which calls for compensation when private property is taken for public use, leaves unspecified the precise empirical content of three key areas: (i) private property, (ii) taken, and (iii) public use, and so judicial clarification has been necessary. The Fourteenth Amendment contains two provisions that are significant for landowners and governments in the US. First, a government must treat people equally and fairly according to the “due process” of law. Second, all citizens have the right to “free travel”, which, in a planning context, means that a city, town, county or state may not impose population caps.<sup>125</sup>

State or local governments in the US may limit a landowner’s right to use or develop private property under the Tenth Amendment to the Constitution. Government may use its ‘police power’ to impose land-use controls to protect public health, safety, morals, and welfare. In utilizing this power, potentially government “need not pay compensation to landowners for limitations on the use of their land as long as an economic use of the property remains.”<sup>126</sup> In defining the threshold for regulatory taking, the US Supreme Court has established the rule that a regulation that denies an owner all economically beneficial or productive use of its land constitutes a taking.<sup>127</sup> In a situation where a planning restriction is considered to be a taking of private property, the regulation could be ruled invalid or the government could be required to buy the land from the landowner.

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<sup>124</sup> Daniels, above n 44, p 32.

<sup>125</sup> Ibid, p 32.

<sup>126</sup> Daniels, above n 44, p 33

<sup>127</sup> See *Lucas v South Carolina Coastal Council*, 505 U.S. 1003, 1015 (1992).



Yet the property rights movement goes further than this. The basic argument of property rights advocates is that any government action that limits development potential of real property, where that action is not aimed at preventing an immediate public harm or nuisance, is a compensable taking. Compensation is required regardless of the value left in the parcel after the regulation is enacted.

In an observation that has direct parallels with recent Australian experience – specifically the back down by the NSW State Government in relation to the proposed green zones in the south-west and north-west Sydney growth areas – the implications of the power of this philosophy to determine public policy in the United States, is evidenced by the further comment that:

Through its political efforts, the property rights movement has succeeded in redirecting public discourse about land and environmental policy; more and more legislators, members of the media, and members of the American public now view the issue of land use and environmental policy from the perspective of how it impinges on private property, rather than how it furthers public goals.<sup>128</sup>

In Australia, s 51(xxxi) of the Commonwealth Constitution is the equivalent provision to the US takings clause. This section provides that any ‘acquisition’ of property by instrumentalities of the Commonwealth must be made on just terms.<sup>129</sup> In contrast to the current US situation,<sup>130</sup> the Constitutional position in Australia appears to be quite different in that compensation is not payable for planning incidents such as ‘takings’ or ‘injurious affection’ (as it is also known in Australia and Britain),<sup>131</sup> but only for the ‘acquisition’ of property on just terms’.<sup>132</sup> In the *Tasmanian Dam* case,<sup>133</sup> the High Court held that even the severe restrictions on land use imposed under the *World Heritage Properties Conservation Act 1983* (Cth), did not constitute an ‘acquisition’ requiring the payment of compensation.

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<sup>128</sup> Jacobs, above n 25, p 141.

<sup>129</sup> The *Commonwealth of Australia Constitution Act 1900*, (Imp) states:

“Section 51 – Concurrent legislative powers of the Federal Parliament.

The Parliament shall, subject to this Constitution, have power to make laws for the peace, order, and good government of the Commonwealth with respect to:-

(xxxi) The acquisition of property on just terms from any State or person in respect of which the Parliament has power to make laws.”

<sup>130</sup> Expressed in *Lucas v South Carolina Coastal Council*, 505 U.S. 1003, 1015 (1992).

<sup>131</sup> Stein, L., above n 30, p 53.

<sup>132</sup> A view supported by the findings of two Commonwealth inquiries – the Commission of Inquiry into Land Tenures, *Final Report* (Canberra, AGPS, 1976); and the Australian Law Reform Commission, *Lands Acquisition and Compensation*, (ALRC 14, Canberra, AGPS, 1980).

<sup>133</sup> *Commonwealth v Tasmania* (1983) 158 CLR 1.



This was because the Commonwealth had not acquired a proprietary interest in the land in question, even though in terms of its potential use the property was sterilized in the same way as a dedicated national park.<sup>134</sup> On the basis of this approach that there had been no acquisition within the meaning of s 51(xxxi) because the Commonwealth had not gained any property, “no form of environmental regulation, however intrusive, will amount to an acquisition ... the constitutional provision will come into play only where environmental legislation gives the Commonwealth a recognized proprietary interest in land or at least exclusive use of it.”<sup>135</sup>

Commenting on the *Tasmanian Dam* case, Wilcox acknowledges the assistance that might be borrowed in future from an understanding of the US situation. He opines that “there is ... an immense body of learning on the related question of what constitutes a ‘taking’ ... I think that, as legislative controls on land increase, there will be pressure to have the courts take the view that they may be so great as to amount to an ‘acquisition’, and the American learning will be drawn upon.”<sup>136</sup>

The point at which regulation imposed on land by Commonwealth environmental laws amounts to an acquisition of property and so attracts the just terms compensation provision of the Constitution was realized in the *Newcrest Mining* case,<sup>137</sup> involving mining leases acquired at Coronation Hill, adjacent to Kakadu National Park.<sup>138</sup> Proclamations were made under the *National Parks and Wildlife Conservation Act 1975* (Cth) incorporating the Coronation Hill area into the park. The Act prohibited mining in the park and, although the mining leases themselves were not extinguished, Newcrest was unable to exercise its rights over them and so the benefits the company might have derived from its leases were effectively sterilized. The High Court found that this amounted to an acquisition of property under s 51(xxxi), as the effect of the proclamations and prohibition of mining was not merely to impair the bundle of rights that existed under the mining leases. The Court held that Newcrest had, “as a legal and practical” matter, been denied the exercise of its rights under

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<sup>134</sup> *Commonwealth v Tasmania* (1983) 158 CLR 1 at 145-6 (Mason J).

<sup>135</sup> Bonyhady, T., ‘Property Rights’, in T. Bonyhady (ed.) *Environmental Protection and Legal Change*, (Leichhardt, NSW, The Federation Press, 1992), pp 46-47.

<sup>136</sup> Wilcox, M., ‘Retrospect and Prospect’, in T. Bonyhady (ed.) *Environmental Protection and Legal Change*, (Leichhardt, NSW, The Federation Press, 1992), pp 208.

<sup>137</sup> *Newcrest Mining (WA) Limited v Commonwealth* (1997) 147 ALR 42.

<sup>138</sup> See: Sperling, K., ‘Going Down the Takings Path: Private Rights and Public Interest in Land Use Decision Making’ (1997) 14 *Environmental and Planning Law Journal* 427.



the leases.<sup>139</sup> The loss in *Newcrest Mining* – the company could do nothing in relation to the land without the right to mine – went much further than that which occurred in the *Tasmanian Dam* case, where the land could still be used by its owner (the state of Tasmania) in a limited way as a national park.

These decisions of the High Court appear to be consistent with the situation at common law in both Australia and Britain, where “there is no right to compensation for the injurious effects of legislative restrictions upon land use imposed in the general interest, as distinct from acquisitions of property.”<sup>140</sup> Any right to compensation – including for injurious affection – must therefore be entirely the creature of statute.<sup>141</sup> On the basis of this distinction between the actual taking of property and a mere affectation of it, the “general practice, under both common law and statute, has been to allow many people no compensation but a few people some”.<sup>142</sup> It has been a common political assumption, nonetheless, that *substantial restrictions* on land use (for example a significant down-zoning of land) must not be imposed without compensation for any diminution in value produced by those restrictions.<sup>143</sup>

Thus, in Australia, unlike the US, there is no constitutional guarantee of compensation for restrictions on land use (subject to the findings regarding ‘acquisition’ by the High Court in the *Tasmanian Dam* and *Newcrest Mining* cases). Further, because there is no equivalent provision in the State Constitutions to s 51(xxxi) of the Commonwealth Constitution, the High Court has held that the States “may acquire on any terms which they may choose to provide in a statute, even though the terms are unjust”, and that “however hard or unjust it may be considered, there is nothing in s 51(xxxi) to restrain the power of the State.”<sup>144</sup> Indeed, “there is nothing in the NSW Constitution that guarantees private property rights or provides for the payment of compensation if the government regulates land use, so the government is quite at liberty to regulate the use of privately owned land without paying

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<sup>139</sup> *Newcrest Mining (WA) Limited v Commonwealth* (1997) 147 ALR 42 at 130, (Gummow J).

<sup>140</sup> Starke, above n 107, p 148. In the case of Britain, this view was reinforced by the findings of the Uthwatt Report in 1942: United Kingdom, *Final Report of the Expert Committee on Compensation and Betterment*, (the Uthwatt Committee, United Kingdom, Cmd. 6386, 1942).

<sup>141</sup> *Baker v Cumberland County Council*, (1956) 1 LGRA 321, 333.

<sup>142</sup> Ryan, P., above n 87, p 276.

<sup>143</sup> Ibid.

<sup>144</sup> *PG Magennis Pty Ltd v Commonwealth* (1949) 80 CLR 382, 397-8, 412. See also, *Commonwealth v New South Wales* (1915) 20 CLR 54, 77.



compensation.”<sup>145</sup> Planning, environmental and natural resources legislation bearing on private land emanates primarily from the states and territories, yet their constitutions do not provide for compensation for landowners even in situations in which state action results in the loss of all economic use of, or they are excluded from, their land. At the state and territory level the payment of compensation where land is resumed for public purposes or subject to planning restriction (that is, the US equivalent of regulatory takings), is purely a matter of convention under legislation. In NSW, the relevant legislation covering public acquisition of land is the *Land Acquisition (Just Terms Compensation) Act 1991*, which is discussed in detail in Chapter 7.

The growing importance of property rights in Australia has also been expressed in judicial review proceedings into the validity of planning decisions. In NSW this is evident in the decision of the Land and Environment Court in *Meriton Apartments Pty Ltd v Minister for Urban Affairs and Planning & Or.*,<sup>146</sup> where the developer successfully challenged a condition of development consent imposed under the provisions of a local planning instrument requiring that a contribution be made for affordable housing for low-income households. One of the grounds of challenge related to unlawful interference with property rights. Here the Court found for the applicant on two counts. Firstly, in applying the legal maxim that property must not be taken away without the payment of compensation, it was held that the *Environmental Planning and Assessment Act 1979* did not contain express provisions permitting the acquisition of property without compensation as envisaged by the challenged provisions. The Court concluded that it did “not think that the New South Wales Parliament intended that well established principles relating to the limitation of powers of a local authority and to discrete issues of fundamental proprietary rights which have been enshrined in the common law were to be discarded by the operation of the Act.”<sup>147</sup> Secondly, any condition imposed in reliance on those provisions was manifestly unreasonable in the *Wednesbury*<sup>148</sup> sense since such conditions would represent an ‘oppressive’ or ‘gratuitous’ interference with property rights.

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<sup>145</sup> Farrier, above n 47, p 9.

<sup>146</sup> *Meriton Apartments Pty Ltd v Minister for Urban Affairs and Planning & Or* (2000) 107 LGERA 363.

<sup>147</sup> *Meriton Apartments Pty Ltd v Minister for Urban Affairs and Planning & Or* (2000) 107 LGERA 363 at 381.

<sup>148</sup> *Associated Provincial Picture House Limited v Wednesbury Corporation Limited* [1948] 1 KB 233.



Although this case was simply a question of statutory interpretation, and there is no constitutional restriction on the power to devise land use controls in NSW, nonetheless the *Environmental Planning and Assessment Act 1979* had to be amended to make it clear that such conditions could be imposed on development consents.<sup>149</sup> Further, it has been argued that the interpretation of Parliament's intention used in this case "has the effect that planning ideologies and goals expressed in planning schemes must be strictly construed or read literally so as not to deprive a landowner of rights."<sup>150</sup> Thus as a matter of practice and policy, and possibly statutory interpretation, it would appear that planners in NSW must take care in devising land use controls and be cognizant of 'how far' or 'how much' they can regulate before running afoul of property rights claims. This revolves around the question of when does a 'taking' or 'injurious affection' constitute an 'acquisition' of property and thus attract compensation. Closer conceptual and practical analysis of this, and the related concept of betterment, is considered below.

### 3.9 Injurious affection, compensation and betterment

The reduction in the value of land either by reservation or down-zoning is known as 'injurious affection'. A 'reserve' is created when land is designated in a planning instrument as being able to be used only for a 'public purpose' such as a road, recreation or conservation. "It is a declaration that the land should be set aside for the community even though it remains in private ownership"<sup>151</sup> until actually acquired by government for that purpose. If a planning instrument permits uses in a reserve, they must be ones that are compatible with its future public purpose. In NSW, the reservation of land in a planning instrument for a public purpose is deemed a compulsory acquisition of the land and compensation must be paid.<sup>152</sup> Because planning authorities generally seek to avoid paying compensation because of the financial burden, it is common practice to 'down-zone' land to a use where development of a limited type is permitted, rather than reserve the land. This has the effect of avoiding acquisition and compensation, yet restricting the use of the land, a distinction recognized in

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<sup>149</sup> *Environmental Planning and Assessment Amendment Act 1999* (NSW), No.72; *Environmental Planning and Assessment Amendment (Affordable Housing) Act 2000* (NSW), No.29.

<sup>150</sup> Stein, L., above n 30, p 7.

<sup>151</sup> *Ibid*, p 52.

<sup>152</sup> Wilcox, M., *The Law of Land Development in New South Wales*, (Sydney, Law Book Co., 1967), pp 277-297.



*Bingham's* case, the first claim for compensation for down-zoning under the planning provisions of the NSW *Local Government Act 1919*.<sup>153</sup>

In the context of the history of urban growth management in Sydney, the question of compensation and acquisition as a consequence of planning restriction has been, and continues to remain, extremely problematic. Historically it was an important factor that led to the demise of Sydney's green belt under the County of Cumberland Plan (discussed in more detail in Chapter 5); more recently, it has been responsible for the decision to abandon the proposed green zones in Sydney's Growth Centres (mentioned in Chapter 1), and presently is affecting environmental protection zonings in NSW (to be analyzed in Chapter 7). Wilcox has offered the following pragmatic assessment and advice on the issue:

As to what course ought to be taken in regard to compensation, may I suggest that the practical course for a government to take, where the effect of controls is so great as to preclude reasonable economic use, is, first, to pay compensation, and, secondly, if the owner requests, to acquire the land. Anything else is politically unacceptable and, therefore, in the end futile. One only has to refer to the brave attempt under the County of Cumberland planning scheme to have a zone of green belt land around Sydney. Compensation was not provided because the green belt restriction was a zoning, not a reservation. The effect on the use of the land was so great that there was immense pressure from the people affected. That was heeded by the politicians in election after election and by-election after by-election. Eventually the green belt totally disappeared.<sup>154</sup>

As a result of a similar view or philosophy of the rights of landowners under the common law, early Town and Country Planning Acts passed in Britain for example (in 1909, 1919 and 1932), were not very effective. One reason for this was because they provided for compensation to be paid to landowners whose property was adversely affected by planning

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<sup>153</sup> *Bingham v Cumberland County Council* (1954) 20 LGR 1. Here the NSW Valuation Court considered a claim for compensation under planning provisions introduced in 1945 as Part XIIA of the *Local Government Act 1919* (NSW). The Act contained a provision (s 342AC(1)) that landholders were entitled to compensation for injurious affection caused by planning schemes. But Sugerman J recognised that "whereas legislation authorising government to acquire land typically provided that its former owner should be compensated in full, legislation which imposed restrictions on the use of land in the public interest contained no such provision [*Bingham v Cumberland County Council* (1954) 20 LGR 1, 26; see also *Baker v Cumberland County Council* (1956) 1 LGR 321, 333]. Consistent with this distinction, Sugerman J found that the Local Government Act's general declaration of a right to compensation was subject to so many qualifications that it represented more an exception than the rule. As in other jurisdictions, landowners had little prospect of successfully claiming compensation unless their land was reserved for a public purpose" (Bonyhady, above n 134, p 49).

<sup>154</sup> Wilcox, above n 136, pp 208-209.



proposals, such as undue restrictions on use through zoning.<sup>155</sup> Consequently, fear of possible compensation claims was a factor strongly discouraging local councils from preparing planning schemes in the pre-war period. For example the Barlow Committee in England had reported in 1940 that “the difficulties that are encountered by planning authorities under the existing system of compensation and betterment are so great as seriously to hamper the progress of planning throughout the country.”<sup>156</sup> The problems were also confronted by the Uthwatt Committee in its 1942 report,<sup>157</sup> discussed further below.

The other side of the compensation coin is betterment. In theory, compensation and betterment are correlative. It has long been established in England (and recognized in Australia<sup>158</sup>) that, where private property had *benefited* from public action, such as the opening of a new road or rezoning of land, the relevant planning authorities were entitled to collect a ‘betterment’ tax from advantaged owners. Land use zoning inevitably results in some landowners being treated more favourably than others. For example, one landowner may have land rezoned for urban development, while another finds that land must remain in rural use. On the one hand land value increases dramatically, while on the other it may even be reduced in relation to what it was before the zoning control was introduced. While planning is supposed to be of benefit to the community generally, in particular cases through the imposition of planning controls, the land owned by some persons will decrease in value. But these persons could be “compensated, inter alia, from the contributions of those who had been privileged to receive ‘betterment’”.<sup>159</sup> Thus, the question that has confronted planners and legislators since land use controls were introduced is should any attempt be made to compensate the losers of zoning (or other planning) decisions, and to tax the beneficiaries of such decisions? Alternatively, should it be accepted that the whole system is too complex to

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<sup>155</sup> See, for example, Cullingworth, J., *Environmental Planning 1939-1969*, Vol. 1. *Reconstruction and Land Use Planning 1939-1947* (London, HMSO, 1975); Booth, P., ‘A desperately slow system? The origins and nature of the discourse on development control’ (2002) 17(4) *Planning Perspectives* 309, who observes in the British context (at p. 312) that “A great deal of energy was devoted to resolving the twin problems of compensation and betterment, to ensure that the state did not have an unlimited liability to compensation and that, equally, windfall gains conferred on landowners and developers by the planning system could be returned, in whole or in part, to the state that had created them.”

<sup>156</sup> United Kingdom, *Report on the Distribution of the Industrial Population*, (United Kingdom, Cmd. 6153, 1940), paragraph 248.

<sup>157</sup> United Kingdom, *Final Report of the Expert Committee on Compensation and Betterment*, (the Uthwatt Committee, United Kingdom, Cmd. 6386, 1942).

<sup>158</sup> See: Starke, above n 107; Wilcox, above n 153; Fogg, above n 89.

<sup>159</sup> Starke, above n 107, p 182.



deal with, too politically unpopular, too impractical, and so too difficult to implement and administer?

Britain provided the statutory basis for a comprehensive system of compensation and betterment in 1947, following the recommendations of the Uthwatt Report in 1942.<sup>160</sup> Up until that time, there had been an assumption that any zoning restriction potentially produced a claim for compensation. Amongst its many and lengthy arguments, the Uthwatt Report made the following points:

- Ownership of land does not carry with it an unqualified right of use (even under the common law).
- Restrictions based on the duties of neighbourliness may be imposed without involving the conception that the landowner is being deprived of any property or interest.
- Therefore such restrictions can be imposed without liability to pay compensation.
- But the point may be reached when the restrictions imposed extend beyond the obligations of neighbourliness.
- At this stage the restrictions become equivalent to an expropriation of a proprietary right or interest and therefore (arguably) should carry a right to compensation.

The Uthwatt Report argued that planning controls did not reduce aggregate land values in the community, but merely shifted values from one place to another. On this assumption, it should *in theory* be possible to construct a fair and logical system by which owners whose land was decreased in value would be compensated out of a betterment fund levied on owners whose land had increased in value. Unfortunately, there are all kinds of practical difficulties relating to the administration of such a scheme, which also became particularly evident in Australia.<sup>161</sup>

In Australia the question of compensation and betterment also has a long, difficult and unsatisfying history.<sup>162</sup> For example the first planning legislation introduced in New South

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<sup>160</sup> Uthwatt Report, above n 157.

<sup>161</sup> See, for example, Else-Mitchell, above n 68, p 5; Day, P., *Land: The elusive quest for social justice, taxation reform and a sustainable planetary environment*. (Brisbane, Australian Academic Press, 1995).

<sup>162</sup> For example, Fogg says the following in relation to betterment: "...attempts to obtain betterment have been almost totally useless in England and Wales, and the Australian States which initiated English legislation have not fared better. What really makes the betterment provisions in Australia largely ineffectual is that, before a



Wales, the *Local Government (Town and Country Planning) Amendment Act 1945*,<sup>163</sup> was closely modelled on the British planning laws, particularly the *Town Planning Act 1932*.<sup>164</sup> Establishment of the legal capacity to create planning schemes and zoning through the enactment in 1945 of Part XIIA of the *Local Government Act 1919*, meant that the value of land affected by zoning would either be increased or decreased. Provision was made in Part XIIA for the payment of compensation where the value of land was decreased and, where the value was increased, for the payment of betterment to the responsible authority by the person so benefited. The basic provision for compensation was contained in s 342AC(1) which conferred the right to claim for compensation for injurious affection. In terms of the *Local Government Act 1919*, injurious affection meant the diminution in the market value of an estate or interest in land caused by the coming into operation of a prescribed planning scheme.<sup>165</sup> Whether an estate or interest in land had been injuriously affected depended on the provision or restriction in question and upon the facts of the particular case.<sup>166</sup> However, there were nine exceptions prescribed in the Act to the right to claim compensation.<sup>167</sup> Of these exceptions, the one most commonly used was the restriction of compensation to situations where land was zoned or reserved for a public purpose such as a reserve, school, railway or public hospital.<sup>168</sup>

Part XIIA of the *Local Government Act 1919* also allowed for the collection of betterment. Sections 342AF and 342AG empowered councils to levy betterment charges where the prescribed planning scheme expressly so provided. This charge was directed to the recovery of any increase in the value of land attributable to the operation of the prescribed scheme. However, the provision proved to be of little practical importance since only a handful of schemes under Part XIIA provided for recovery of betterment, as councils were reluctant to claim betterment charges due to its electoral unpopularity.

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charge can be made in respect of a particular property, it is necessary first to prove that it has increased in value owing to the operation of a particular provision in a planning scheme or the execution of a particular work under a scheme. A second difficulty lies in the calculation of the extent to which this increase is due to a planning circumstance.” See Fogg, above n 89, p 520.

<sup>163</sup> The *Local Government (Town and Country Planning) Amendment Act 1945* (NSW) amended the *Local Government Act 1919* by inserting a new Part XIIA – Town and Country Planning Schemes).

<sup>164</sup> For example, the *Local Government (Town and Country Planning) Amendment Act 1945* allowed for both the payment of compensation (s 342AC) and the imposition of betterment (s 342AF and s 342AG).

<sup>165</sup> *Local Government Act 1919*, s. 342AC(1)(a)(i)-(iii).

<sup>166</sup> *Bingham v Cumberland County Council* (1954) 20 LGR 1 at 9-10.

<sup>167</sup> *Local Government Act 1919*, s 342AC(2).

<sup>168</sup> *Local Government Act 1919*, s 342AC(2)(h); see generally *Chapman v The Minister* (1966) 13 LGRA 1; compensation in these situations are now reflected in the *Land Acquisition (Just Terms Compensation) Act 1991* (NSW).



Issues of compensation and betterment became particularly problematic after the first metropolitan plan for Sydney, the County of Cumberland Planning Scheme, became law in 1951.<sup>169</sup> Planners involved in the County of Cumberland Plan were well aware from familiarity with English planning experiences, of the difficulties of the implementation of the scheme, which would entail the payment of substantial compensation to owners of land which was required for public purposes or which would be injuriously affected by the scheme's zoning provisions. Included here, for example, were "the astronomical claims totalling £375,000,000 which were made for injurious affection resulting from the Scheme ...<sup>170</sup>

The matter of whether compensation should be awarded as a consequence of the operation of the County of Cumberland Planning Scheme was largely resolved in *Bingham v Cumberland County Council*, a landmark compensation case in 1954.<sup>171</sup> Here, Justice Sugerman distinguished between legislation authoring government to acquire land, which typically provided that its former owner should be compensated in full, and legislation that imposed restrictions on the use of land in the public interest, which generally contained no such provision. Consistent with this distinction, Sugerman J found that the general declaration of a right to compensation in the *Local Government Act 1919* was subject to so many qualifications that it represented more an exception than the rule. Further, his Honour held that the claim for compensation arising from injurious affection to a parcel of land was offset by betterment accruing to other land held by the plaintiff, and so no compensation should be payable.<sup>172</sup> This aspect of the judgment of the Court was similar in effect to the findings and recommendations of the Uthwatt Committee in respect to town planning not changing aggregate land values, but rather shifting them from one place to another.

A later attempt in NSW to introduce a betterment tax – the *Land Development Contribution Management Act 1970* – operated briefly between 1970 and 1973. This legislation, with its cognate statute the *Land Development Contribution Act 1970*, enabled the capture of 30% of

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<sup>169</sup> *Local Government (Amendment) Act 1951* (assented to on 27 June 1951).

<sup>170</sup> Cumberland County Council, *Annual Report of Cumberland County Council*, (Sydney, 1954), p 2.

<sup>171</sup> *Bingham v Cumberland County Council* (1954) 20 LGR 1.

<sup>172</sup> This was a logical conclusion as s 342AC(4)(c) provided that whether a claimant accrued any benefit from the coming into operation of a prescribed scheme, was to be taken into account in assessing compensation for injurious affection of land arising from the operation of that scheme.



the increase in value from the rezoning of rural land around Sydney for urban use or the sale of other ‘declared land’ that had not yet been rezoned,<sup>173</sup> and raised some \$9 million for public works and services needed for the rezoned land.<sup>174</sup> The tax was collected either upon the granting of development consent, sale, or rezoning of land declared for urban release under the Act. The NSW Land Development Contribution statutes were hailed in some quarters as “... a brave attempt to achieve a worthwhile and workmanlike method of ensuring that the betterment achieved by zoning is returned to the community...”<sup>175</sup> However, the tax proved problematic due to the impediment it placed on new residential development at a time of extreme land shortages and inflationary pressure in the property market. The legislation was abandoned as developers were either refusing to develop land (so avoiding the tax) or, if developing land, were passing the cost on to home buyers, both actions further exacerbating land supply shortages and inflation in land and house prices in Sydney.<sup>176</sup> Thus, the levy did not affect the person to whom it was aimed, that is the original owners of broadacres whose land had gained in value through no effort of their own. Currently, in Australia the power to claim a betterment levy operates only in the Australian Capital Territory, via a change-of-use-charge (‘CUC’) under the *Land (Planning and Environment) Act 1991*.<sup>177</sup>

Central to the rationale of government attempting to recover, via a levy or tax, the betterment private landowners have gained, was the widely held feeling in Australia and Britain that landowners have no moral right to the ‘unearned increment’: that is, to increases in land values that are not due to any effort of their own but merely to factors such as the growth of

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<sup>173</sup> The *Land Development Contribution Management Act 1970* (NSW) sought to capture the unearned increment from ‘declared land’ in Sydney. It provided for the levying of a contribution on declared land not yet rezoned for urban use each time it was sold (s. 7(1)). Declared land that had been rezoned was only subject to the levy once, either when sold or a development consent is first granted (whichever happened first), or after rezoning (s. 7(2)). By making land identified for future urbanization but not yet rezoned, subject to the levy each time it was sold, the Act sought to discourage – or at least tax – land speculation.

<sup>174</sup> Day, P., *Land: The elusive quest for social justice, taxation reform and a sustainable planetary environment*. (Brisbane, Australian Academic Press, 1995), p 17.

<sup>175</sup> Fogg, n 89, p 521.

<sup>176</sup> Williams, P. ‘Inclusionary Zoning and Affordable Housing in Sydney’ (2000) 18(3) *Urban Policy and Research* 291.

<sup>177</sup> Under the *Land (Planning and Environment) Act 1991* (ACT) (the ‘Land Act’), a lessee wishing to change the use of their lease is required to make a development application for a variation to the lease purpose clause. If the variation is approved, and the new use is assessed as adding value to the lease (i.e. accruing an ‘unearned increment’), then a change-of-use charge (CUC) is determined according to that added value. This charge is set as a proportion of the unearned increment, calculated at various rates over time, with the current rate set under s 184A of the Land Act at 75 % of the added value. However there are circumstances prescribed in the *Land (Planning and Environment) Regulation 1992* (ACT) where CUC can be either reduced or increased by 25 per cent, to a maximum of 100 per cent.



the city around them, rezoning, and to public investment in roads, services etc. This point was made forcefully and unequivocally by a 1965 British Government White Paper:

A growing population, increasingly making their homes in great cities, has not only made effective public control over land indispensable: it has also made indefensible a system which allows landowners or land speculators wholly to appropriate the increases, often very large, in the value of urban land resulting from either government action ... or from the growth of social wealth or population.<sup>178</sup>

In Australia, the Commission of Inquiry into Land Tenures considered the “unearned increments” resulting from changes in use associated with the retention by private landowners of development or urbanization rights, which it described as the rights to convert land from rural to urban use or from one urban use to another of greater intensity. The Commission of Inquiry referred to these rights accruing from the unearned increment of land use change or rezoning as “development rights”, and took a similar view to the British:

We have argued that because development rights ensue from government action, it is the community generally and not individual landowners who should reap the benefits accruing from such rights. We therefore propose that all development rights be reserved to the Crown and that all future increments in development value be appropriated by public authorities for the benefit of the whole community.”<sup>179</sup>

In defending its recommendation of government adopting the device of acquiring or reserving future development rights, the Chair of the Commission of Inquiry, the Hon. Rae Else-Mitchell pointed out that the suggestion was not novel. It was referred to in the Scotts Reports of 1918 and 1942 in the UK, and was advocated by the Barlow and Uthwatt Reports made in 1940 and 1942. It was observed that “even in the USA the need has been recognized for a separation of development rights from use rights, the development rights being transferable and capable of being dealt with apart from the land itself, so as to enable better control of development and the preservation of existing uses.”<sup>180</sup> Acknowledgement of the distinction between development rights and use rights was instrumental to the formulation of transfer and purchase of development rights schemes as planning tools in that country.

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<sup>178</sup> UK Ministry of Land and Natural Resources, *The Land Commission*, (HMSO, Cmnd 2771, London, 1965).

<sup>179</sup> Commission of Inquiry into Land Tenures. *Final Report* (AGPS, Canberra, February 1976), p. 40.

<sup>180</sup> Else-Mitchell, the Hon. R., in *Adelaide Conference on Land Tenures: Proceedings of a conference on the first report of the Commission of Inquiry into Land Tenures*. Convened by the Urban and Regional Planning Research Unit, University of Adelaide, 9 August 1974 (AGPS, Canberra, 1974), p. 9.



The significance to effective planning and urban growth management of the issues of compensation and betterment, and by inference the respective concepts of property rights and unearned increment on which they are based, is reflected in the opinion of one Australian commentator:

In practice the twin problems of betterment and compensation have never been comprehensively confronted. *Until they are resolved, town planning will remain fundamentally flawed.*” (emphasis in original)<sup>181</sup>

To be effective, metropolitan planning ideally needs to confront these matters head on and either instigate a system of compensation for injurious affection (or regulatory takings in the US context) and a betterment tax for unearned increment, or abandon consideration of both and persevere with only offering compensation in situations of resumption. Paradoxically however, tackling the seemingly intractable problem of unearned increment through a betterment tax would appear to be one of the few options (one other is the British model of public acquisition of rural land prior to urbanization) open for effective growth management. This is particularly evident given scenarios such as the decision of the NSW Government to abandon the proposed green zones in the north-west and south-west growth centres of Sydney. If there was an effective betterment tax in place, then the pressure for urbanization arising from the expectation of broadacre landowners of windfall gains through urban rezoning would be removed or diminished. This would remove a powerful force fuelling the urbanization of the metropolitan fringe and the resultant stress on, or loss of, natural resources such as threatened species, open space and habitat, water and agricultural land.

The problems discussed above – which in some measure are due to a heavy reliance on ‘command’ regulation tools such as zoning, reservations and subdivision and building restrictions, and the policy, legal and political practicalities of the operation of property rights – remain problematic. The increasing invasiveness and perceived affects of these regulations on the economic value and use of land has generated “a backlash from landholders who see these controls as an attack on their livelihoods and property rights.”<sup>182</sup> One solution lies in the option of looking beyond the traditional regulatory planning approach, augmenting

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<sup>181</sup> Day, above n 172, p 18.

<sup>182</sup> Ryan, S. ‘Conservation through Development: The Potential for Transferable Development Rights in Queensland’. (Paper presented at 2004 QELA Conference – Carrot, Sticks and Toolkits. Cairns, 12-14 May 2004), p 1.



‘command’ regulation by adopting tools which seek to work within the challenges presented by property rights and development expectations. Included here are programs that use the market to redistribute the costs and benefits of conservation.<sup>183</sup> In the context of managing urban growth in Sydney, this means adopting a strategy that utilises tools which aim for natural resource conservation and environmental protection, but which also recognises the reality of continuing demand for housing and other urban uses in the Greater Sydney Region.

### 3.10 ‘Smart regulation’

Potentially, town (or environmental) planning has an enormous influence because it operates by *controlling the use of land* upon which all human activities are ultimately based. It does that by restricting private property rights through statutory intervention seeking a balance between the right of the private landowner to develop or use land or other resources and the safeguarding of the broader public interest in the protection of the environment and amenity.<sup>184</sup> Rights to develop land – to subdivide and build upon land or to change its use – are now generally controlled by planning legislation,<sup>185</sup> as are the rights to extract natural resources both from private and public land; however, the right to decide how to manage the land is still largely unfettered. “Yet the management of land is crucial to its ability to sustain long-term productive activity and natural ecosystems.”<sup>186</sup> Planning approaches which encourage the beneficial management of private land from a public interest in the maintenance of environmental quality are therefore necessary. However regulating the use to which land can be put may have a major bearing on its value,<sup>187</sup> and in any event may be ineffectual in influencing the management of private land. It is here that approaches that make environmental protection financially attractive (or at least not burdensome) to private landowners, can play a role. In this context market-based instruments and planning incentives and other forms of ‘smart regulation’ are pre-eminent.

Modern planning, environmental and natural resource regulation may be characterized as constituting two phases. The first began in the late 1960s and early 1970s, when countries around the world responded to public concern over a range of environmental problems by

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<sup>183</sup> Ibid, p 1.

<sup>184</sup> See Sax, J., ‘Some Thoughts on the Decline of Private Property’ (1983) 58 *Wash LR* 481.

<sup>185</sup> See Ryan, P., ‘Freedom of Property – An Urban Planning Perspective’ (1988) 11 *UNSWLJ* 48.

<sup>186</sup> Bates, above n 73, p 40.

<sup>187</sup> Day, above n 172, p 13.



introducing a range of regulations as a way to implement planning policy and control environmentally harmful activities. Generally, these regulatory approaches have tended to follow the US model of ‘command and control regulation’, or ‘direct regulation’, or ‘coercive law’ of which zoning, planning and environmental compliance standards are examples. Typically, direct regulation has involved legislatures proscribing certain behaviour and setting up regulatory agencies to grant permissions and to monitor and police compliance with the legal standards:

Coercive law and regulation ... may include planning measures. Prohibition and licensing of activities, issuance of directions and orders, criminal offences and penalties, and registration and/or tracking systems for dangerous substances, as well as the various roles of administrative law, and specialist courts and agencies.<sup>188</sup>

The second phase in the history of environmental regulation may be traced back to the late 1970s and involved neo-liberal critics of the regulatory state mounting of a strong case for environmental deregulation. In particular some economic rationalists pointed to the deficiencies of the traditional regulatory state, as the basis of arguing the case for its replacement by market or property rights approaches including industry self regulation and voluntary environmental compliance. Many of the neo-liberal criticisms of command regulation and consequent arguments in favour of various market-based forms of regulation and compliance have arisen from the perceived failure and complexity of the US environmental regulatory system.<sup>189</sup> Both ‘extremes’ – command and control regulation and market or property rights approaches have their problems. For example command regulation is perceived as reactive: that the ‘dead hand’ of zoning cannot respond quickly to changing circumstances nor is it proactive; whilst market-based tools, to the extent that they are voluntary, cannot guarantee desired environmental outcomes. Thus, the search for an alternative approach in terms of regulatory policy led to the pursuit of ‘smarter’ regulation, which sought to build on existing statutory approaches, while recognizing market and property imperatives, to derive a policy mix more likely to achieve beneficial environmental outcomes. In general terms therefore, ‘smart regulation’ has been described as “that which promises improved environmental performance, but at a price acceptable to business and the

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<sup>188</sup> Ramsey, R. and Rowe, G., *Environmental law and policy in Australia: text and materials*, (Sydney, Butterworths, 1995), p 119.

<sup>189</sup> Iannuzzi, A Jr., *Industry Self-Regulation and Voluntary Environmental Compliance*, (Lewis Publishers, Boca Raton, Florida, 2002).



community”.<sup>190</sup> Inherent in this approach is the utilization of market incentives – ‘incentive-based regulation’ – involving the application of instruments that will facilitate positive management as an important part of the policy mix to achieve environmental and resource management goals.<sup>191</sup>

Appreciation of the need for the adoption of a broader suite of policy tools has become clearer as the nature of environmental and natural resource problems are better understood. Thus, in the field of biodiversity conservation for example, the failure of the two ‘extremes’ of command and control regulation on the one hand and self-regulation and voluntary agreements on the other has been recognized. Given the pattern of land tenure, effective biodiversity conservation measures cannot be limited to (often fragmented) public lands, but must also extend into land in private ownership. To ensure the positive management of biodiversity on private land, traditional command regulation alone is, arguably, insufficient. Recognition of the unavoidable impact of property rights on development expectations and consequential land use decisions in relation to private land is also necessary. What is also required therefore is the adoption of policy responses that work with, rather than against, the framework of property rights:

Rather than trying to close loopholes in the existing command-and-control system, we must begin to question the very use of this form of regulation in its pure form as a policy instrument to address the problem of biodiversity conservation on private land. Society is not yet ready for vast regulatory incursions into the historically privileged realm of private property without some *quid pro quo*, at least when these incursions are carried out in the name of biodiversity conservation.<sup>192</sup>

To achieve this *quid pro quo*, a policy mix that includes economic instruments that operate in the context of property rights is required. On the one hand changes to the regulatory regime and compensation for the cost impacts of species conservation regulations on landowners

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<sup>190</sup> Gunningham, N., and Grabosky, P., *Smart regulation: designing environmental policy*, (Oxford University Press, Oxford, 1998), p 11.

<sup>191</sup> Goodstein, E., *Economics and the Environment*, (Prentice Hall, Englewood Cliffs, N.J., 1995), p 267. In particular, Goodstein identifies pollution taxes (or effluent or emission charges) and marketable permit systems as two significant examples of incentive-based regulation within the field of environmental protection and pollution control.

<sup>192</sup> Farrier, D., “Conserving Biodiversity on Private Land: Incentives for Management or Compensation for Lost Expectations?” (1995) 19 *Harvard Environmental Law Review* 303 at 390.



have been suggested.<sup>193</sup> Alternatively, providing incentives such as stewardship payments to encourage positive management of land and biodiversity by private landholders has been advocated so as to make *voluntary* abandonment of existing incompatible uses a viable proposition.<sup>194</sup> Either way, the attractiveness of such schemes is that the burden of the costs of biodiversity conservation does not only fall on affected property owners, but is spread throughout the wider community.

Integral to the concept of smart regulation therefore, is the perception that no single instrument or single strategy is able to deal successfully with the complexity of modern environmental problems. Each mechanism has inherent strengths and weaknesses, so a more efficacious strategy is to use a complementary mix of instruments or tools and recruit a range of regulatory actors, tailored to specific policy goals. Six different types of regulatory tools, for example, have been identified by Gunningham and Grabosky.<sup>195</sup> These are: 1. Command and control regulation; 2. Self-regulation; 3. Voluntarism; 4. Education and information instruments; 5. Economic instruments (discussed and expanded below); and 6. Free market environmentalism.<sup>196</sup>

While the central tenet of smart regulation is the employment of a mix of regulatory tools implemented by a range of participants, it is apparent that a decided preference is demonstrated for economic or market-based instruments from amongst this mix. This preference is perhaps understandable given that economic or market-based instruments are now more commonly used as a regulatory approach by governments, and are either seen as an alternative to, or companion of, traditional command and control regulation. For this reason closer examination of economic or market-based instruments is warranted, and the distinction

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<sup>193</sup> Polasky, S., Doremus, H. and Rettig, B., "Endangered species conservation on private land" (1997) 15(4) *Contemporary Economic Policy* 66.

<sup>194</sup> Farrier, above n 193.

<sup>195</sup> Gunningham, above n 191.

<sup>196</sup> *Self-regulation* is defined as a process whereby an organized industry-based association regulates the behaviour of its members, usually by setting rules and standards such as codes of practice, relating to the conduct of firms in the industry. *Voluntarism*, conversely, does not involve coercion or social control by a group, but rather a unilateral decision by the individual firm to abide by a set of controls or standards. *Education and information-based instruments* vary and may overlap. These instruments include education and training, corporate environmental reports, community right to know and pollution inventories, product certification, and award schemes. *Free market environmentalism* entails, in the context of the present discussion, allocating property rights for natural resources and then allowing the market to operate unfettered by government intervention.



between this tool and other approaches such as free market environmentalism should be emphasized (and is discussed further below and in Chapter 4).

Economic or market-based instruments may incorporate the following elements: property rights; market creation (that is, creation of a market by government where none previously existed – for example of tradeable pollution or resource rights, individually transferable property-right mechanisms and certain offset arrangements); covenants and easements; leasing and licensing; fiscal instruments and charge systems; financial instruments; performance bonds; and deposit refund systems.<sup>197</sup> Economic instruments or approaches thus take a variety of forms, but may be characterized in their impact as being either positive (i.e. incentives) or negative (i.e. taxes). An alternative way to perceive economic approaches is, therefore, as incentive-based approaches, which “involve either the handing out (incentives) or taking away (disincentives) of monetary and non-monetary material resources in order to change behaviour. The distinguishing characteristic of incentive-based approaches is that no one is obligated to take a particular course of action.”<sup>198</sup>

The various types or uses of economic or market-based instruments have been classified by Panayotou,<sup>199</sup> as falling into one of the following categories: 1. Property rights; 2. Market creation; 3. Fiscal instruments and charge systems; 4. Financial instruments; 5. Liability instruments; 6. Performance bonds; 7. Deposit refund systems; and 8. Removing perverse incentives. Several of these tools which have application to urban growth management in the context of natural resource conservation and environmental protection are examined briefly below.

Utilisation of *property rights* as a policy tool rests on the assertion that natural resource depletion and diminution of environmental quality is caused by inadequately defined and insecure property rights. Clear and enforceable property rights and obligations in natural resources with commercial value (such as ecosystem services provided by biodiversity and

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<sup>197</sup> Gunningham, above n 190.

<sup>198</sup> Bengston, D., Fletcher, J., and Nelson, K., ‘Public policies for managing urban growth and protecting open space: policy instruments and lessons learned in the United States’, (2004) 69 *Landscape and Urban Planning* 271 at 274.

<sup>199</sup> Panayotou, T., *Economic Instruments for Environmental Management and Sustainable Development* (A report for the UNEP: Expert Group Meeting on Use and Development of Economic Policy Instruments for Environmental Management, Nairobi, August 1994).



riparian corridors for example), would create an incentive for the landowners currently holding the property rights to maintain that resource (for example threatened species and their habitats).<sup>200</sup>

The object of *market creation* is for the government to create a market where none previously existed. A market might be created, for example, through the issue of tradeable development rights or tradeable resource rights, which might be bought or sold like any other commodity.<sup>201</sup> Market creation has advantages over ‘pure’ command and control regulation such as establishing a framework for users to tailor responses to individual circumstances and providing an incentive – rather than fear and avoidance of government proscription – as the basis of compliance. Market creation may be envisaged as a hybrid between free market environmentalism and command and control regulation, since government retains effective control of the scheme by determining the allowable development and quantity of available permits as well as enforcing compliance by individual permits.<sup>202</sup> To the extent therefore that these markets are fundamentally dependent on command regulation for their operation, smart regulation effectively represents an amalgam of traditional regulatory and newer economic instrument approaches.

*Fiscal instruments and charge systems* seek to encourage responsible behaviour and management of natural resources through full or partial cost pricing of resources used in production or the use of land. Rather than establishing property rights over common or unpriced resources, this approach involves setting prices on them, which might, for example, take the form of a tax. Conversely tax concessions or exemptions may be offered to landowners who manage their land in an environmentally responsible manner. *Financial instruments* aim to mobilize additional financial resources for conservation and environmental protection, and include measures such as revolving funds, green funds, stewardship payments, subsidized interest rates and soft loans. Action for *removing perverse incentives* recognizes that the value of many potentially valuable incentive mechanisms may

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<sup>200</sup> Organisation of Economic Co-operation and Development (OECD), *Economic Incentives for the Conservation of Biodiversity: Conceptual framework and guidelines for case studies* (Group on Economic and Environmental Policy Integration, Expert Group on Aspects of Biodiversity, OECD, Paris, 1994).

<sup>201</sup> Gunningham, above n 190, p 71.

<sup>202</sup> Kinrade, P., “Towards Ecologically Sustainable Development: The Role and Shortcomings of Markets”, in Eckersley, R., (ed.) *Markets, the State and the Environment: Towards Integration* (Macmillan Education Australia, Melbourne, 1995), p 96.



be lost or reduced through the existence of countermanding incentives. For example, the success of a transfer of development rights or credits scheme as an urban growth management tool may be undermined if other mechanisms are available which permit higher development potential in designated receiving sites from these credits, especially if these alternative mechanisms do not involve additional cost to the developer.<sup>203</sup>

Conceptually economic or market-based instruments (with the exception of the category of property rights) are clearly distinct from free market environmentalism. Economic or market-based instruments are inherently regulatory in nature – hence the use of the alternative term ‘incentive-based regulation’ to also describe this approach. Thus,

Although often billed as alternatives to command and control, economic instruments (excluding property rights) may, in fact, be considered as market-based variants of command and control, in that the regulator still dictates environmental aims through the manipulation of price signals or tradeable permits.<sup>204</sup>

Free market environmentalists, on the other hand, espouse extreme alternatives to environmental regulation. They argue not only for a more precise allocation and specification of property rights (as described above as one of the options under the economic instruments approach), but also advocate the substitution of legislative action by the free market, which would regulate sources of pollution and exploitation of natural resources.<sup>205</sup> In relation to the property rights for natural resources, free market environmentalism entails the allocation of these rights to private interests, then permitting the market to operate unfettered by government intervention. Under this approach, all land use, resource exploitation and environmental outcomes can and should be determined as the product of bargains struck

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<sup>203</sup> This is the situation that would undermine the operation of a general transfer of developments rights (TDR) scheme, should one be introduced in NSW. As an alternative to paying for development rights or credits to permit higher density development in designated locations, developers can use State Environment Planning Policy No.1 – Development Standards (‘SEPP 1’) as a mechanism to increase the development potential of a site. An advantage of SEPP 1 is that this higher development potential is realisable at no extra cost to the developer. Thus for a TDR scheme to be workable, alternatives such as SEPP 1 should not be available – which is the approach adopted by Sydney City Council in respect to its Heritage Floor Space Bonus Scheme, a TDR scheme devised for the protection of heritage buildings in and around the Sydney CBD. Council requires that developers seeking higher development densities must achieve this through the use of the Heritage Floor Space Bonus Scheme and not SEPP 1.

<sup>204</sup> Gunningham, above n 190, pp 83-84.

<sup>205</sup> See, for example, Anderson, T., and Leal, D., ‘Free Market Versus Political Environmentalism’ (1992) 15 *Harvard Journal of Law and Public Policy* 297.



between individual owners of natural resource property rights.<sup>206</sup> There is no role whatsoever for government in this process, other than monitoring and enforcing the trading of individual property rights.

From a theoretical perspective, a number of advantages and disadvantages of economic or market/incentive-based systems compared with traditional command and control regulation may be identified. Potential advantages include the promotion of more cost-effective regulation in the short run; provision of incentives over the long run for landowners to actively manage and maintain land for biodiversity, open space or other rural (including agricultural production) purposes, which entail more sustainable resource utilization practices; and reduction of the cost burden of information gathering for regulatory agencies. Possible disadvantages of incentive-based approaches include: problems of monitoring and enforcement; ‘hot spots’ (that is, high local concentrations of pollutants or resource degradation); thin markets (that is, markets with only a few buyers and sellers); and the possible exercise of market power to limit competition (that is, existing firms denying access to permits by refusing to sell to new entrants, as a barrier to entry in the market).

Each of the various regulatory instruments or tools described above has their strengths and weaknesses. The rationale of smart regulation is the need to adopt a variety or mix of instruments. Under this strategy, the strengths of individual mechanisms are harnessed, whilst their weaknesses are offset by the use of additional complementary instruments. The selection of instruments chosen from the suite available will vary according to the circumstances of each case, so as to facilitate the formulation of the most appropriate policy response. For example, it has been argued that a reliance on command and control regulation “may be acceptable when dealing with land degradation or water pollution, but it may be inappropriate when it comes to conservation of biodiversity”,<sup>207</sup> due to the need to provide incentives for conservation on private land. Inherent in the smart regulation approach is the evolution and reconfiguration of environmental regulation through the adoption of newer

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<sup>206</sup> Jacobs, M., ‘Sustainability and the Market: A typology of environmental economics’, in R. Eckersley (ed.), *Markets, the State and the Environment*, (Melbourne, Macmillan Press, 1995).

<sup>207</sup> Farrier, above n 192, p 353.



types of policy instruments that seek to overcome or mitigate the problems associated with previous initiatives, in particular with traditional forms of command and control regulation.<sup>208</sup>

### 3.11 Conclusion

Land tenure, property ownership and property rights form an unavoidable milieu for planning and land use (including natural resource) management, particularly in its statutory or regulatory manifestations. The bond between traditional planning regulation and private property has not been harmonious, creating a number of problematic outcomes which are ultimately revealed as planning policy failure. As a consequence, interaction of the ‘theory’ of planning regulation with the realities of land tenure, private property and property rights’ arguments needs to be considered closely, so that more effective policy and regulatory responses may be devised to the problems of managing the biophysical impacts of the growth of Sydney particularly in peri-urban areas.

As property rights arguments gain greater political traction in Australia, planning tools which recognize this (albeit misconceived) reality of property rights may need to become more prominent. Although property rights are not part of the legal, political and planning tradition in Australia, recent NSW planning examples point to the challenge they now pose. These examples include as the demise of the proposed Sydney Growth Centres green zones mentioned in Chapter 1, advice from the Department of Planning to include acquisition provisions in relation to the perceived down zoning of land to environment protection zones (discussed in Chapter 7), and the general difficulties faced by traditional ‘command’ regulation, particularly in ensuring the appropriate management of private land. There is a need to consider alternative approaches, to achieve planning, environmental and natural resource objectives. These include approaches from the US where, due to property rights and takings issues, reliance on market-based planning tools is more common than in Australia or Britain. ‘Smart regulation’, which seeks to integrate ‘command’ regulation and market-based instruments, is suggested as warranting further investigation. Nonetheless, an approach to urban growth management which utilizes all available tools is desirable. To this end, the next

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<sup>208</sup> Gunningham, N. and Sinclair, D., *Leaders and Laggards. Next Generation Environmental Regulation*, (Greenleaf Publishing, Sheffield, 2002).



chapter examines the range of options available to planners seeking to manage the natural resource and biophysical impacts of urban growth.



# 4

## APPROACHES AND MECHANISMS FOR URBAN GROWTH MANAGEMENT AND NATURAL RESOURCE CONSERVATION

### 4.1 Introduction

This chapter examines in detail the three broad approaches to urban growth management identified in Chapter 1. The three broad approaches are categorised as: *strategic and policy*; *statutory/regulatory*; and *market-based and economic* approaches. Specifically, considered here are some of the tools or mechanisms available within each of these approaches for managing the impacts of urban growth in the context of natural resource conservation and environmental protection. Accordingly, the chapter is divided into three main parts, with each part identifying and discussing individual tools or mechanisms available within each broad approach. Focus of this discussion is placed largely on the Australian and NSW contexts, though some mention is made of overseas literature and experience where relevant. Benefits – as well as some of the problems – pertaining to each of these approaches, are also explored in this chapter to provide some context for fuller consideration of issues specific to Sydney and NSW later in this thesis.

Mechanisms or tools available within the broad strategic and policy approach include bioregional planning and integrated resource management (manifested specifically in the form of catchment planning or management), strategic spatial planning at the metropolitan/regional level, land capability studies, and landscape management or planning. While broadly strategic or policy in nature, it is contended here that these



tools are an essential component of sound growth management policies. They form the required basis for, and may be implemented by, more specific regulatory and market-based approaches that also seek to conserve environmental and natural resource attributes in the context of urban growth pressures.

The focus of the second part of this chapter is the various tools or mechanisms which constitute the regulatory-based approach to the implementation of urban growth management objectives. Included here is an analysis of regulatory-based growth management mechanisms such as statutory planning (or development control), land use zoning, subdivision control including community title to permit cluster subdivision, urban growth boundaries, greenbelts and specific purpose legislation. Embraced in this last category are mechanisms such as national park/conservation estate designations, specialised natural resource and environmental legislation, and right-to-farm legislation.

The third broad approach for managing growth involves a number of market-based and economic tools linking both the public and private sectors. These mechanisms may either provide for compulsory action by government, or rely on voluntary participation in market-based schemes, including fiscal and planning incentives. Engagement by each sector in the range of market-based and economic tools include:

- The public sector, which involves a combination of compulsory and voluntary fiscal measures. It includes acquisition – of either freehold title or development ‘rights’ through purchase (i.e. purchase of development rights), fiscal incentives, compensation, and taxation.
- The private sector, which usually relies on voluntary market-based mechanisms (often mandated by government regulation), and includes transferable development rights, green offsets and planning incentives.

Often, a number of these schemes will also entail the imposition of traditional common law restrictions to user, in the form of covenants and easements, which may be mandated by statutory enactment governing a particular market-based or fiscal tool. They may also imply the offer of various financial and planning incentives or



bonuses, which involve the relaxation of regulatory controls which might otherwise apply to development.

As with any attempt at categorisation of complex concepts, consensus of classification with other writers in this field is not possible. In this thesis the rationale for the market-based and financial approach for example, is that this is generally a voluntary approach that usually recognises property rights and so operates on a basis of acquisition of property or rights attached to it (by either the public or private sector), or using the market and property rights as the media for policy delivery. On the basis of this rationale, purchase and transfer of development rights for example, which are tools involving the acquisition of partial interests in land, are categorised under the market-based and economic approach.<sup>1</sup> Others however, perceive these tools to be examples of planning incentives, since this is how they appear to operate from the perspective of the landowner.<sup>2</sup> Further, there is invariably some overlap in classification. For example, some market or economic-based tools may be mandated or implemented by statute (that is, a regulatory approach). Nonetheless, the view taken here is that the fundamental character of such mechanisms is that they are generally voluntary and incentive-based, hence are market-based tools, which just happen to operate via the vehicle of statute.

## 4.2 Strategic and policy approaches

By ‘strategic planning’ is meant the planning, in advance, of the use of land. Another term therefore, to describe this activity, is forward planning. Strategic planning is usually not statutory in nature, in other words it is not legally binding, but may be implemented by legally enforceable – that is, ‘statutory’ – plans. Given its intrinsic non-statutory nature, another term to delineate strategic planning is policy planning.

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<sup>1</sup> For examples of this rationale of classification of purchase and transfer of development rights, see: Kelly, E., *Managing Community Growth: Policies, Techniques and Impacts* (Praeger, Westport, CT, 1993) and Porter, D., *Managing Growth in America's Communities* (Island Press, Washington, DC, 1997).

<sup>2</sup> See for example Bengston, D., Fletcher, J., and Nelson, K. ‘Public policies for managing urban growth and protecting open space: policy instruments and lessons learned in the United States’, (2004) 69 *Landscape and Urban Planning* 271.



Since the Second World War, planning's focus has broadened from buildings and subdivision regulation and residential amenity to embrace wider social, economic, environmental and natural resource concerns. Traditionally, planning responds either to specific planning proposals or planning problems as they arise. Although this 'reactive' approach should not be entirely dismissed – after all, the demands of contemporary development and project assessment have led to evolution of sophisticated assessment tools such as environmental impact assessment – present-day planning now also emphasises more strategic approaches, as well as integrated environmental planning and natural resource management. Governments, resource managers, planners and developers are responding to the problems of resource exploitation and conservation by “seeking more integrated approaches that will enable their projects and programs to deliver as many benefits as possible, within acceptable limits of social and environmental impact, and with minimum conflict and cost.”<sup>3</sup>

Strategic spatial planning at the metropolitan or regional level, which in the context of the Sydney Region is examined in more detail in Chapter 5, provides the essential bedrock for urban growth management. If a goal or end of urban growth management is the protection of natural resources and environmental quality, then strategic or forward planning that incorporates these factors is required. This means utilising instruments such as catchment planning, integrated resource management and land capability studies to formulate and implement the appropriate strategies and policies for managing the natural resource and environmental impacts of urban growth. In other words, a strategic plan for a region or metropolitan area that is not based on planning tools such as bioregional or catchment planning and land capability studies or assessments which focus on natural resource and environmental management or protection, can hardly be expected to effectively to achieve these ends.

As well as seeking to demonstrate the importance of a strategic or policy-based methodology as one of the approaches that should be used by planners in the task of urban growth management, this section also examines some instances in Australia where strategic or policy-based tools have been adopted with some success. Such a review is undertaken with the aim of expounding that, for natural resource and

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<sup>3</sup> Lang, R., (ed.) *Integrated approaches to resource planning and management*, (The Banff Centre for Continuing Education, Calgary, University of Calgary Press, 1986), p 1.



environmental protection to be taken seriously, a policy or strategic-based approach is a necessary ingredient of a holistic growth management strategy. Chapters 5 and 6 conversely highlight the failure of past and current metropolitan strategic planning and policy in Sydney to effectively incorporate natural resource and environmental protection issues. For this reason the present chapter provides a contextualisation of strategic planning as a growth management tool in Australia in order to elaborate its potential benefits and justify perseverance with this approach by government.

#### **4.2.1 Conceptual basis of strategic planning tools in urban growth and natural resource management**

The strategic planning and policy approach to urban growth management involves a number of instruments or mechanisms. These include bioregional and catchment planning and integrated resource management, strategic spatial planning at the metropolitan/regional level, land capability studies, and landscape management or planning. Undertaken properly therefore, strategic planning is very much concerned with a holistic and integrated approach to land use decision-making. However, although the literature identifies different forms of strategic planning, in reality the distinction between many of these tools is a fine one, being perhaps more of academic interest rather than reflecting practical operation. They are all manifestations of the same fundamental approach – one based on holistic forward planning, usually expressed as non-binding policy. Importantly, strategic planning provides the basis on which land use decisions utilising other planning methodologies – regulation and economic-based approaches – should be grounded.

Bioregional planning involves the adoption of a regional approach to land use management and planning, with biogeographic regions such as ecosystems forming the unit of land management. Bioregional planning firstly assumes that both integrated resource management and investment decisions will be applied to the bioregional unit in question, a notion that is discussed at more length in the consideration of bioregional planning in Australia later in this chapter. A further idea in relation to bioregional planning is to link land use planning to biophysical boundaries and hence processes. It is this second area of application of bioregional planning to land use planning that is comparatively weak in Australia. More



specifically, in its application to the urban-rural fringe, bioregional planning should be seen as a holistic approach to manage land use and urban growth from a natural resources perspective. The natural resource components of a bioregional based urban growth management strategy should include the preservation of agricultural land, the conservation of biodiversity and habitat, and the protection of environmental attributes such as water quality.

Fundamentally two implicit questions arise when considering a bioregional approach to land use planning in general and growth management in particular. Firstly, how are bioregions defined? And secondly what is the most appropriate bioregional unit (e.g. based on biodiversity, catchments, ecosystems or some other geophysical criteria) to adopt? In other words, on what basis do we choose bioregional units?

Central to the notion of bioregional planning and to the considerations of what is meant by bioregions and on what basis bioregional units are chosen, are the concepts of a *biogeographic region* and an *ecosystem*. In developing an agreed biogeographic regionalisation for Australia, the Australian Nature Conservation Agency (ANCA) established the following definitions of these terms:

Biogeographic region: A complex area composed of a cluster of interacting ecosystems that are repeated in similar form throughout. Region descriptions seek to describe the dominant landscape scale attributes of climate, lithology, geology, landforms and vegetation. Biogeographic regions vary in size with larger regions found where areas have more subdued terrain and arid and semi-arid climates.

Ecosystem: All of the organisms in a given area in interaction with their non-living environment.<sup>4</sup>

A similar definition, but one which emphasises the biodiversity aspects of a bioregional approach to land use planning and natural resource management and decision making in the Australian context is offered by the NSW Office of Environment and Heritage:

Bioregions are relatively large areas characterised by broad landscape-scale natural features and environmental processes that influence the functions of

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<sup>4</sup> Thackway, R. and Creswell, I. (eds.) *An Interim Biogeographic Regionalisation for Australia: A Framework for Establishing the National System of Reserves, Version 4.0*, (Canberra, Australian Nature Conservation Agency, 1995), p ix.



entire ecosystems. They capture the large-scale geophysical patterns across Australia. These patterns in the landscape are linked to fauna and flora assemblages and processes at the ecosystem scale, thus providing a useful means for simplifying and reporting on more complex patterns of biodiversity ... Planning for biodiversity at this scale recognises the significance of these natural processes and gives us the greatest opportunity to conserve biodiversity in sufficient numbers and distribution to maximise its chance of long-term survival.<sup>5</sup>

Initial development of an agreed system of biogeographic regionalisation was based around the identification of the various bioregions in Australia so that a representative sample of each could be protected by inclusion in the conservation estate as ‘protected areas’.<sup>6</sup> In addition to this particular biodiversity conservation focus of bioregionalism, the broader need for integration of a bioregional approach to biodiversity with natural resource management has also been recognised. Thus, a key principle of the *National Strategy for the Conservation of Australia’s Biological Diversity* is that:

Central to the conservation of Australia’s biological diversity is the establishment of a comprehensive, representative and adequate system of ecologically viable protected areas integrated with the sympathetic management of all other areas, including agricultural and other resource production systems.<sup>7</sup>

This principle is particularly manifested in one of the key objectives (Objective 1.4) of the National Strategy, which is to “Establish and manage a comprehensive, adequate and representative system of protected areas covering Australia’s biological diversity.”<sup>8</sup> A further objective of the National Strategy relates specifically to bioregional planning. Objective 1.2 seeks to “Manage biological diversity on a regional basis, using natural boundaries to facilitate the integration of conservation and production-oriented management.”<sup>9</sup> In a similar vein, the *NSW Biodiversity*

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<sup>5</sup> NSW Office of Environment and Heritage, *What is a bioregion?* (Sydney, OEH, 2011), <http://www.environment.nsw.gov.au/bioregions/BioregionsExplained.htm>, viewed 12 May 2011.

<sup>6</sup> A ‘protected area’ is defined in the Convention on Biological Diversity as a “geographically defined area which is designated or regulated to achieve specific conservation objectives”.

<sup>7</sup> Commonwealth of Australia, *The National Strategy for the Conservation of Australia’s Biological Diversity*, (Canberra, Commonwealth Department of the Environment, Sport and Territories, 1996), p. 6, <http://www.environment.gov.au/biodiversity/publications/strategy/pubs/national-strategy-96.pdf>, viewed 12 May 2011.

<sup>8</sup> Ibid, p 9.

<sup>9</sup> Ibid, p 8.



*Strategy* adopts a comparable bioregional approach, having as one of its ‘core objectives’ to:

Strengthen management of biodiversity on a bioregional basis while using existing catchment level networks to focus on specific actions, including the integration of biodiversity conservation and natural resource management, consistent with the principles of ecologically sustainable development.<sup>10</sup>

The most common type of bioregional unit is the river catchment or basin, and the management of this bioregional unit is known variously by terms such as integrated catchment management and integrated catchment planning. In Australia “there appears to be an emerging consensus between the Commonwealth and State governments on the need for integrated catchment planning, addressing landuse, water allocation, water quality and biodiversity issues in a single management framework at the catchment or sub-catchment level”.<sup>11</sup>

In relation to bioregional planning, the *National Strategy for the Conservation of Australia’s Biological Diversity* makes the following comment:

Regional planning in which environmental characteristics are a principal determinant of boundaries is considered to be of major importance if biological diversity conservation is to succeed. The Murray-Darling Basin Commission, for example, plans on an environmental basis, using catchment boundaries as well as existing local, State and Commonwealth structures. Several State and Territory governments are also beginning to plan and manage on a bioregional basis as part of their land management responsibilities. Actions such as this are needed elsewhere in Australia; they must be based on ecological parameters, vegetation types, catchment areas and climatic factors, combined with the interests of those living and working in the area.<sup>12</sup>

A concept closely linked to a bioregional approach to land use and broader natural resource management and planning is that of *integrated resource management*. Various definitions and models of integrated resource management abound. Most of these ‘definitions’ take the form of listing the components or characteristics of the

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<sup>10</sup> NSW National Parks and Wildlife Service, *NSW Biodiversity Strategy*, (NPWS, Hurstville, NSW, 1999), p 8.

<sup>11</sup> Allen Consulting Group, *Repairing the Country. Leveraging Private Investment*, (The Business Leaders’ Roundtable, Melbourne, 2001), p 21, [http://www.acfonline.org.au/uploads/res\\_private\\_investment.pdf#search='Repairing%20the%20Country'](http://www.acfonline.org.au/uploads/res_private_investment.pdf#search='Repairing%20the%20Country'), viewed: 12 May 2012.

<sup>12</sup> Commonwealth of Australia, above n 7, p 8.



integrated resource management ‘approach’, or provide models of integrated resource management. Further, the terminology employed also varies – with terms used such as integrated resource management, integrated environmental management, integrated local area management and integrated development and planning – to name but a few. Effectively, there is little substantive difference between these terms. Whilst the term ‘integrated resource management’ is preferred by some writers (such as Lang<sup>13</sup>) and ‘integrated environmental management’ by others (including Cairns and Crawford<sup>14</sup>), nevertheless as Slocombe states “the difference between integrated environment and development planning and integrated resource management are little more than an explicitly broader emphasis and a potentially stronger methodological orientation.”<sup>15</sup> Born and Sonzogni share this view, arguing that there are “significant similarities between integrated (environmental) management approaches and some of its many ‘roots’.”<sup>16</sup>

Mitchell describes the concept of integrated resource management in the following terms:

... the usual idea associated with integrated resource management is the sharing and coordination of the values and inputs of a broad range of agencies, publics and other interests when conceiving, designing and implementing policies, programs or projects. The search for integration can occur at normative, strategic or operational levels [of management].<sup>17</sup>

Importantly, this definition of integrated resource management highlights the significance of bringing together environmental and natural resource perspectives. These are two perspectives that, traditionally, have not necessarily coincided, as the discussion in Chapter 2 sought to demonstrate. Not only should the environment and natural resources be seen as interconnected fields (evidenced for example, by the blurring of the concept of biodiversity, whereby it is part of ‘the environment’, yet

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<sup>13</sup> Lang, above n 3.

<sup>14</sup> Cairns, J. and Crawford, T., (eds.) *Integrated Environmental Management*, (Chelsea, MI, Lewis, 1990).

<sup>15</sup> Slocombe, D., ‘Environmental Planning, Ecosystem Science and Ecosystem Approaches for Integrating Environment and Development’, (1993) 17(3) *Environmental Management* 289 at 298.

<sup>16</sup> Born, S. and Sonzogni, W., ‘Integrating Environmental Management: Strengthening the Conceptualisation’, (1995) 19(2) *Environmental Management*, 167 at 168.

<sup>17</sup> Mitchell, B., ‘The Evolution of Integrated Resource Management’, in Lang, R., (ed.) *Integrated approaches to resource planning and management*, (The Banff Centre for Continuing Education, Calgary, University of Calgary Press, 1986), p 14.



increasingly is perceived as a 'natural resource'), but also the management of both needs to be coordinated or integrated with land use planning at both government policy implementation and agency implementation levels.

Several planning disciplines have the scope to incorporate integrated environmental and resource management approaches. The first is urban and regional planning, which seeks to serve the broad public interest through guiding a wide range of human or economic-based development activities. This is achieved through a process of goal setting, planning and regulation.<sup>18</sup> Yet the ability of urban and regional planning to incorporate integrated environmental approaches is limited by the fact that ecological and socio-cultural concerns rarely map neatly onto planning boundaries, which are normally defined by rigid political and administrative borders.<sup>19</sup> More promising, perhaps, is environmental planning. Although similar in many respects to urban and regional planning, it is also comparatively newer and is based on ecological and social science disciplines, which view people as part of a system. The ecosystems approach is a specialised extension of environmental planning and incorporates a methodology for studying and modelling a biophysical entity such as an ecosystem, its environment (including people) and the interactions between them.<sup>20</sup>

One specific field of application of integrated resource management that deserves closer scrutiny because of its catchment (and hence bioregional focus) is *integrated water resource management* (IWRM). IWRM has emerged as a significant concept since the United Nation Conference on Environment and Development (the Earth Summit) in Rio de Janeiro in June 1992 and, prior to this by an International Conference on Water and the Environment which occurred in January 1992 in Dublin.<sup>21</sup> However support for IWRM has not been unanimous. Both operationally

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<sup>18</sup> Slocombe, above n 15, pp 290 and 299.

<sup>19</sup> Ibid, p 291; Margerum, R. and Born, S., 'Integrated Environmental Management: Moving from Theory to Practice', (1995) 38 *Journal of Environmental Planning and Management* 371 at 373-374.

<sup>20</sup> Slocombe, above n 15, p 294.

<sup>21</sup> Prior to the United Nation Conference on Environment and Development (the Earth Summit) in Rio de Janeiro in June 1992, an International Conference on Water and the Environment occurred during late January 1992 in Dublin. The purpose of the Dublin conference was to identify priority issues related to freshwater, and to recommend actions to address them (International Conference on Water and the Environment, 1992). The ideas and proposals from Dublin were taken to the Earth Summit, and many of the recommendations were subsequently included in Agenda 21, the strategy for sustainable development in the 21<sup>st</sup> century. The Dublin Statement asserted that action needed to come from local, national, and international levels, and four principles were presented to guide future



and conceptually, the integration principle has attracted some criticism. For example, it has been contended that determining boundaries for ecosystems is usually challenging because there are no generally accepted rules for their identification.<sup>22</sup> Concerns over IWRM have also been expressed through the observation that “not only no one has a clear idea as to what exactly this concept means, in operational terms, but also their views of it in terms of what it actually means and involves vary widely”.<sup>23</sup> However rather than abandon IWRM as being conceptually too woolly or operationally too difficult, “the implication is that IWRM, as with all concepts, has limitations, and should be used with those in mind.”<sup>24</sup> Thus, a ‘holistic’ or ‘systems’ approach is desirable for resource and environmental management in general:

There is an intuitive appeal to the view that a broad array of variables and their interrelationships should be examined as a system, because many land-based activities have implications for water flows and quality ... As a result, an examination of aquatic and terrestrial systems through an integrated approach provides one way to address the dynamics of interrelated systems, ensuring that critical relationships are recognised and managed.”<sup>25</sup>

It is worthwhile noting that two basic interpretations of a holistic or systems approach for resource and environmental management have become evident over time – namely *comprehensive* and *integrated*.<sup>26</sup> However these should not be seen as two different interpretations, but rather as complementary instruments which can be used in a phased manner by planners. The comprehensive interpretation (for example, as in comprehensive river basin planning and management) emphasises that the relevant ecosystem should be defined in the broadest possible way, such as an entire aquifer or

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initiatives. The first principle has been interpreted as a call for ‘integrated water resource management’. The principle stated that:

‘Fresh water is a finite and vulnerable resource, essential to sustain life, development and environment. Since water sustains life, effective management of water resources demands a holistic approach, linking social and economic development with protection of natural ecosystems. Effective management links land and water uses across the whole of a catchment area or groundwater area.’

The first principle emphasised that water problems cannot be treated in isolation, and indeed should be considered in relation to land-based and land-use planning systems.

<sup>22</sup> Fzsimmons, A., *Defending Illusions: Federal Protection of Ecosystems* (Rowman and Littlefield, Lanham, MD, 1999).

<sup>23</sup> Biswas, A., ‘Integrated Water Resources Management: A Reassessment’, (2004) 29 *Water International* 248 at 249.

<sup>24</sup> Mitchell, B., ‘Integrated Water Resource Management, Institutional Arrangements, and Land Use Planning’, (2005) 37 *Environment and Planning A* 1335 at 1337.

<sup>25</sup> Ibid, pp 1337-1338.

<sup>26</sup> Downs, P., Gregory, K. and Brookes, A., ‘How Integrated is River Basin Management?’ (1991) 15(3) *Environmental Management*, 299.



river basin, and then one should seek to identify and understand *all* variables and relationships. The comprehensive interpretation is useful at the strategic level, since it assists in seeking to identify and consider the broadest array of variables which may be significant for coordinated management of terrestrial and aquatic systems. The integrated interpretation (for example, as evident in integrated water resource management) began to emerge in the mid-1980s and was reflected at the Earth Summit. This interpretation maintains a systems perspective, but is more focused or selective than the comprehensive interpretation. In other words, rather than seeking to examine *all* variables and relationships, the integrated approach focuses on what are considered to be the *key* or *selected* variables and relationships. The integrated interpretation is desirable once moving to the operational or tactical level, to reduce the variables and relationships to be addressed. It is this integrated approach that has gained prominence, particularly in relation to government decision-making in individual bioregions concerning key or priority natural resource management issues such as biodiversity, water quality, salinity and agricultural land protection.

#### **4.2.2 Strategic planning tools for urban growth and natural resource management in Australia**

Bioregional planning and integrated approaches to resource and environmental management in Australia have tended to have a ‘non-urban’ or rural focus. Application of strategic approaches such as integrated resource management and bioregionalism have thus not featured strongly in planning for urban areas, including the field of urban growth management.

Two quite distinct major applications of bioregional systems have been formulated at a national level in Australia. These are, firstly, the *Interim Biogeographic Regionalisation for Australia* (IBRA),<sup>27</sup> and secondly the natural resource management regions established for the former National Action Plan for Salinity and Water Quality (NAP) and Natural Heritage Trust (NHT).<sup>28</sup> Both of these bioregional

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<sup>27</sup> Department of Sustainability, Environment, Water, Population and Communities, *Australia's bioregions* (DSEWPC, Canberra, 2011), <http://www.environment.gov.au/parks/nrs/science/ibra.html>, viewed 20 May 2011.

<sup>28</sup> Both the National Action Plan for Salinity and Water Quality (NAP) and the Natural Heritage Trust (NHT) ceased on 30 June 2008 and were replaced by Caring for our Country, which is current the



systems were managed at a national level by the Australian Government through its relevant environmental agency – currently the Department of Sustainability, Environment, Water, Population and Communities. However, various state and territory departments and regional organisations also have a role in the operation and implementation of these two bioregional systems. As outlined below, in the case of NSW the IBRA framework has been utilised to assist in biodiversity conservation, while the former NHT/NAP natural resource management regions have been incorporated into the State’s catchment management framework. The bioregional systems identified and utilised by NAP and NHT were retained when these programs were replaced in July 2008 by the latest Commonwealth scheme for funding environmental management of natural resources, Caring for our Country.<sup>29</sup>

IBRA was the first national system of bioregional division developed in Australia. With the realisation in the early 1990s that administrative regions were no longer a satisfactory basis for conservation assessment and planning,<sup>30</sup> “the mapping of the bioregions of Australia was undertaken by the Federal Government in cooperation with State and Territory conservation agencies to provide a consistent and robust framework for biodiversity assessment and planning.”<sup>31</sup> IBRA was created as a result of an Australia-wide mapping exercise to divide the country into bioregions on the basis of their dominant landscape-scale attributes.<sup>32</sup> The term ‘interim’ is retained in the IBRA title because the bioregions are periodically updated as new or more reliable information becomes available on ecosystems from a range of biological and

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program used by the Australian Government to fund the environmental management of natural resources.

<sup>29</sup> Caring for our Country, *What is a Natural Resource Management Region?* (Australian Government Land and Coasts, Canberra, 2011), <http://www.nrm.gov.au/nrm/region.html>, viewed 20 May 2011. Caring for our Country integrated the Australian Government’s previous natural resource management initiatives, including the Natural Heritage Trust, National Action Plan for Salinity and Water Quality, the National Landcare Program, the Environmental Stewardship Program and the Working on Country Indigenous land and sea ranger programs – see Caring for our Country, *What is Caring for our Country?* (Australian Government Land and Coasts, Canberra, 2011), <http://www.nrm.gov.au/about/caring/index.html>, viewed 21 May 2011.

<sup>30</sup> Dick, R. ed., *A multi-faceted approach to regional conservation assessment in the Cobar Peneplain biogeographic region – an Overview*. (NSW National Parks and Wildlife Service, Hurstville, NSW, 2000), p 2.

<sup>31</sup> NSW National Parks and Wildlife Service, *What is a bioregion?* (NPWS, Hurstville, NSW, 2006), [http://www.nationalparks.nsw.gov.au/npws.nsf/Content/bioregions\\_explained](http://www.nationalparks.nsw.gov.au/npws.nsf/Content/bioregions_explained), viewed 17 September 2006.

<sup>32</sup> Thackway, R. and Creswell, I. (eds.) *An Interim Biogeographic Regionalisation for Australia: A Framework for Establishing the National System of Reserves, Version 4.0*, (Australian Nature Conservation Agency, Canberra, 1995).



environmental surveys designed to refine bioregional boundaries.<sup>33</sup> At the time of writing, IBRA Version 6.1 contained the most recent updates. IBRA 6.1 divides the Australian continent into 85 bioregions, plus 404 sub-regions which have also been defined Australia-wide based on major geomorphic features in each bioregion.<sup>34</sup> Of these 85 bioregions, 17 are found in NSW. Two lie wholly within the boundaries of NSW, while the other 15 are shared with bordering States – Victoria, South Australia and Queensland.<sup>35</sup>

IBRA was developed primarily for biodiversity conservation purposes – specifically to identify deficiencies in the Australian network of protected areas and to set priorities for further enhancing the conservation reserve and park system.<sup>36</sup> However, it has also been utilised for wider natural resource management purposes:

The bioregions and sub-regions are the reporting unit for assessing the status of native ecosystems, their protection in the national reserve system and for use in the monitoring and evaluation framework in the Australian Government's current Natural Resource Management initiatives. The IBRA sub-regions (where available) have previously been used as the unit of analysis for continent-wide assessments of landscape health and biodiversity by the National Land and Water Resources Audit.<sup>37</sup>

An example of the application of IBRA to a National Land and Water Resources Audit project was the *Australian Terrestrial Biodiversity Assessment 2002*,<sup>38</sup> undertaken by the Commonwealth Department of Environment and Heritage and funded by the Natural Heritage Trust. Included in this assessment were 14 regional biodiversity management case studies. The case study subregions, and in some cases, entire bioregions, were stratified across the six landscape stress classes identified in

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<sup>33</sup> NSW Office of Environment and Heritage, *What is a bioregion?* (OEH, Sydney, 2011), <http://www.environment.nsw.gov.au/bioregions/BioregionsExplained.htm>, viewed 20 May 2001.

<sup>34</sup> Department of the Environment and Heritage, *Australia's Biogeographical Regions* (DEH, Canberra, 2006), <http://www.deh.gov.au/parks/nrs/ibra/index.html>, viewed 30 November 2006.

<sup>35</sup> NSW Office of Environment and Heritage, above n 33.

<sup>36</sup> Thackway and Creswell, above n 30.

<sup>37</sup> Department of the Environment and Heritage, above n 34, p 1.

<sup>38</sup> Commonwealth of Australia, *Australian Terrestrial Biodiversity Assessment 2002* (National Land and Water Resources Audit, Braddon, ACT, 2002), [http://audit.ea.gov/ANRA/vegetation/docs/biodiversity/bio\\_assess\\_contents.cfm](http://audit.ea.gov/ANRA/vegetation/docs/biodiversity/bio_assess_contents.cfm), viewed 30 November 2006.



the continent-wide *Landscape Health Assessment*<sup>39</sup> and across Australia's broad agro-ecological regions. Significantly from the point of view of this thesis, one of the case studies undertaken was the Cumberland Plain (Sydney Basin), which fell into the highest landscape stress class.<sup>40</sup> The detailed regional case studies were designed to assist in quantifying the strategies and the resources required to achieve meaningful biodiversity outcomes by systematically assessing the needs of each subregion or bioregion. For example, all 14 case studies identified that a significant increase of funding was necessary to achieve effective biodiversity outcomes.<sup>41</sup> The case studies also highlighted the importance of mechanisms to ensure biodiversity conservation on private land (that is, the encouragement of off-reserve conservation), the value of a bioregional approach for biodiversity and natural resource management, and the need for a mix of policy instruments:

The case studies demonstrate that increased attention by government to provide a policy environment and market drivers for biodiversity conservation on private lands is likely to yield substantial benefits for biodiversity conservation ... the case studies illustrate the benefits of integrated bioregional planning compared with the difficulties of dealing with a myriad of thematic or species-based strategies that may be planned in isolation to overall regional priorities. They demonstrate the importance of assessing the mix of conservation actions required at the bioregion or subregion level and the need for such assessment to inform regional planning and natural resource management programs.<sup>42</sup>

Following the trend of governments throughout Australia, New South Wales has incorporated a bioregional approach to biodiversity conservation. Sensibly, the NSW National Parks and Wildlife Service (NPWS) – now the Office of Environment and Heritage – adopted the IBRA framework for bioregional based biodiversity conservation planning. This response arose from recognition of “the need to work with large geographic scales and biological cycles to plan and achieve biodiversity

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<sup>39</sup> Commonwealth of Australia, *Landscape Health in Australia* (National Land and Water Resources Audit, Canberra, ACT, 2001), <http://lwa.gov.au/files/products/national-land-and-water-resources-audit/pr010330/pr010330.pdf>, viewed 20 May 2011.

<sup>40</sup> Commonwealth of Australia, *Australian Terrestrial Biodiversity Assessment 2002 – Case Study – Cumberland Plain (Sydney Basin 8) High stress class* (National Land and Water Resources Audit, Braddon, ACT, 2002), [http://audit.ea.gov/ANRA/vegetation/docs/biodiversity/bio\\_assess\\_cumberland.cfm](http://audit.ea.gov/ANRA/vegetation/docs/biodiversity/bio_assess_cumberland.cfm), viewed 30 November 2006.

<sup>41</sup> Commonwealth of Australia, above n 38.

<sup>42</sup> Ibid, pp 1-2.



conservation.”<sup>43</sup> Further, as “biodiversity is influenced by but does not recognise administrative boundaries”,<sup>44</sup> this presents additional weight for a bioregional approach to assess all land across a region or landscape.

In a major project, the *Bioregional Overviews* report,<sup>45</sup> the NPWS utilised the 17 IBRA bioregions of NSW and presented snapshots of the conservation character and significance of each of these regions. The report sought to provide “a basis for establishing conservation priorities by offering guidance to conservation planners on setting such priorities at a coarse, bioregional scale.”<sup>46</sup> Funded partly by the 1999 *NSW Biodiversity Strategy*, the *Bioregional Overviews* report was meant to be an interim tool until more detailed bioregional assessments are available under the Integrated Bioregional Conservation Assessment (IBCA) program.<sup>47</sup> In the same vein, the *NSW Biodiversity Strategy* also prepared by the NPWS,<sup>48</sup> has as two of its complimentary principles for biodiversity conservation, recognition of the need for *in situ* protection and the designation of a comprehensive system of representative protected areas across entire landscapes.<sup>49</sup> Fundamental to the implementation of the Strategy, is the need for a bioregional approach to biodiversity conservation, integrated with the protection and management of other natural resources, in the face of increasing urbanisation pressures.

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<sup>43</sup> NSW Office of Environment and Heritage, above n 33.

<sup>44</sup> Ibid.

<sup>45</sup> NSW National Parks and Wildlife Service, *The Bioregions of New South Wales: their biodiversity, conservation and history* (NSW National Parks and Wildlife Service, Hurstville, NSW, 2003), <http://www.environment.nsw.gov.au/bioregions/Bioregions.htm>, viewed 20 May 2011.

<sup>46</sup> Ibid, p 1.

<sup>47</sup> Integrated biodiversity conservation assessments for different bioregions and regions of NSW were prepared by the NPWS and funded by the NSW Biodiversity Strategy. See: NSW National Parks and Wildlife Service, *Integrated biodiversity conservation assessments*, (NPWS, Hurstville, NSW, 2006), <<http://www.nationalparks.nsw.gov.au/npws.nsf/Content/Integrated+biodiversity+conservation+assessments>> viewed 1 December 2006.

<sup>48</sup> At the time of writing a second NSW Biodiversity Strategy – the *Draft NSW Biodiversity Strategy 2010-2015*, prepared by the Department of Environment, Climate Change and Water (DECCW) and Industry and Investment NSW (I&I NSW), had just completed a period of public consultation and submissions – see NSW Office of Environment and Heritage, *NSW Biodiversity Strategy*, (OEH, Sydney, 2011), <http://www.environment.nsw.gov.au/biodiversity/nswbiostrategy.htm>, viewed 20 May 2011.

<sup>49</sup> Specifically, the two principles are:

- “Biodiversity is best conserved in situ (that is, in its natural environment) and at all levels: genetic, species and community.” and
- “Central to biodiversity conservation is the establishment of a comprehensive, adequate and representative reserve system in conjunction with actions to conserve biodiversity across the entire landscape.” – NSW National Parks and Wildlife Service, *NSW Biodiversity Strategy*, (NPWS, Hurstville, NSW, 1999), p 8.



Yet strategic land-use planning for conservation of biodiversity has been weak in NSW. “The planning legislation retains an urban development focus, and is not integrated with natural resource management legislation.”<sup>50</sup> Responding partly from recognition of the need to better integrate biodiversity protection into strategic land-use planning processes so that habitat and ecological communities are better protected and restored, but also from the call to speed up the approval process for land development, the State government introduced a *biodiversity certification* scheme. The *Threatened Species Legislation Amendment Act 2004* (NSW) provided for biodiversity certification (or ‘biocertification’) of environmental planning instruments (EPIs), which was integrated with land-use regulation under the *Environmental Planning and Assessment Act 1979* (NSW) to facilitate an across the landscape approach to biodiversity protection, in contrast the traditional site-by-site approach.<sup>51</sup> The certification process supports improved consideration of biodiversity in strategic land-use planning:

“This approach has significant planning and ecological merit because it supports consideration of biodiversity issues early in the process of determining future land-use, and before development investment decisions and feasibility studies are completed. It enables issues to be considered and resolved at the landscape scale at which many ecosystems and species function. Significant ecological issues, such as landscape connectivity and habitat fragmentation, can also be more effectively considered.”<sup>52</sup>

The operation of biodiversity certification in the contexts of administrative or institutional responsibilities and the urban growth management of Sydney, are considered in more detail in Chapters 6, 7 and 8 respectively.

The second national system of bioregional division in Australia relates to the natural resource management programs managed by the Commonwealth Government. Here the major national programs were the National Action Plan for Salinity and Water Quality (NAP) and the Natural Heritage Trust (NHT), subsequently replaced in 2008

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<sup>50</sup> Robinson, D. 2009, ‘Strategic planning for biodiversity in New South Wales’ 26 *Environmental and Planning Law Journal* 213 at 213.

<sup>51</sup> The NSW biocertification scheme was amended in 2010, so that certification of land, rather than EPIs, is now required – vide *Threatened Species Conservation Amendment (Biodiversity Certification) Act 2010* (NSW). This amendment is discussed in more detail in Chapter 6.

<sup>52</sup> Connolly, I. and Fallding, M. ‘Biocertification of local environmental plans – promise and reality’, (2009) 26 *Environmental and Planning Law Journal* 128 at 133.



by Caring for our Country. Fifty-six bioregions were identified in Australia, the boundaries for each established by agreement between federal and state or territory governments. Each region has its own discrete regional plan – an *integrated natural resource management plan* – administered by regional bodies and developed in conjunction with local communities and state or local and federal governments. Funding for these regions – preparation of regional plans, resource assessment and capacity-building – was provided by the Natural Heritage Trust and the National Action Plan for Salinity and Water Quality. In turn, the regional plans were the basis for regional investment from both the Trust and the National Action Plan and, since 2008, by Caring for our Country.

The integrated natural resource management plans contain information on catchment-wide activities and address a range of natural resource management issues including land and water management, biodiversity and agricultural practices. Integrated catchment management is thus one of the key principles of the Commonwealth's funding initiatives (i.e. the NHT, NAP and Caring for our Country), whose programs are jointly delivered at the regional level and driven by each region's integrated natural resource management plan. Funding for the first two programs, the NHT and NAP, was significant. The NAP commenced in 2000–01 and was a \$1.4 billion commitment over seven years, while the NHT had funding of \$3 billion, consisting of an initial outlay of \$1.7 billion in 1997 augmented by a \$1.3 billion extension in 2002–03.<sup>53</sup> The Caring for our Country program commenced on 1 July 2008 with the Commonwealth Government allocating more than \$2 billion,<sup>54</sup> invested over five years to 2013 across six national priority areas.<sup>55</sup>

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<sup>53</sup> Natural Resource Management Ministerial Council, *National Action Plan for Salinity and Water Quality. Natural Heritage Trust. Regional Programs Report 2004–05*, (Australian Government Departments of the Environment and Heritage and Agriculture, Fisheries and Forestry, Canberra, 2005), <http://www.nrm.gov.au/publications/regional-report/04-05/index.html>, viewed 13 January 2006.

<sup>54</sup> Caring for our Country, *2008-2009 Report Card*, (Australian Government Land and Coasts, Canberra, 2011), <http://www.nrm.gov.au/me/report-cards/2008-09/index.html>, viewed 21 May 2011.

<sup>55</sup> Caring for our Country, *What is Caring for our Country?* (Australian Government Land and Coasts, Canberra, 2011), <http://www.nrm.gov.au/about/caring/index.html>, viewed 21 May 2011. Under the Caring for our Country program funds are allocated across the following six national priority areas: (1) the National Reserve System; (2) biodiversity and natural icons; (3) coastal environments and critical aquatic habitats; (4) sustainable farm practices; (5) natural resource management in northern and remote Australia; (6) community skills, knowledge and engagement.



As was the case with the utilisation of the IBRA system of bioregions for biodiversity conservation at the state level by the former NSW National Parks and Wildlife Service, integrated natural resource management plans and the delivery of the NAP and the NHT also appeared to be reasonably well-coordinated with state level agencies. In NSW, the NAP and the NHT were jointly delivered by the Australian and NSW Governments.<sup>56</sup> Arrangements for the implementation of both programs are outlined in bilateral agreements between the Australian and NSW Governments.<sup>57</sup> Delivery of both the NAP and the NHT at the regional level in NSW was the responsibility of the 13 regional Catchment Management Authorities (CMAs) constituted under the NSW *Catchment Management Authorities Act 2003*.<sup>58</sup> The NHT was delivered through all 13 regions, whilst the NAP is delivered through the CMAs represented in seven priority regions in rural NSW. The mechanism for regional NAP and NHT investments in NSW were regional investment strategies. Initially these were in the form of a series regional plans or Catchment Blueprints prepared by the NSW Government. The Blueprints were then accredited by both relevant NSW and Australian Government Ministers to ensure a sound basis for NAP and NHT investments. Following the introduction of the *Catchment Management Authorities Act 2003*, Catchment Action Plans were developed by the new CMAs to replace the Blueprints. The Catchment Action Plans take into account existing accredited regional plans (Blueprints), Native Vegetation Management Plans and Water Management Plans.

Catchment management authorities retained their role as the regional natural resource management organisations in NSW for Commonwealth NRM funding initiatives after the replacement of the NHT and NAP by Caring for our Country in July 2008. In 2008-09 over \$41 million was allocated by Caring for our Country to CMAs in

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<sup>56</sup> The Departments of Agriculture, Fisheries and Forestry and the Environment and Heritage, through the Australian Government Natural Resource Management Team, are the lead Australian Government agencies for delivery of the NAP and the NHT in NSW and across Australia. In NSW, this is done in partnership with the Department of Natural Resources, the lead NSW Government agency for the delivery of the NAP and the NHT.

<sup>57</sup> NAP Bilateral Agreement for NSW signed May 2002; NHT Bilateral Agreement signed August 2003.

<sup>58</sup> Natural Resource Management, *New South Wales*, (Australian Government, Canberra, 2006), <http://www.nrm.gov.au/state/nsw/index.html>, viewed 30 November 2006.



NSW,<sup>59</sup> followed by a further \$102.7 million in 2009-10,<sup>60</sup> and \$24.7 million in 2010-11.<sup>61</sup> In addition to the Sydney Metropolitan CMA, parts of the Greater Sydney Metropolitan Region also fall within the Hawkesbury-Nepean, Hunter-Central Rivers, and Southern Rivers CMAs. Catchments overlapping with Sydney and its peri-urban area have been the recipients of substantial funding for natural resource management projects in recent years, including \$46.1 million over the past three years.<sup>62</sup> This figure does not include funding to community groups such as Landcare through Caring for Our Country over this time. Catchments therefore remain fundamental natural resource management (NRM) units in NSW, and so warrant further examination.

#### 4.2.3 Catchment management in NSW

One type of biogeographic regional planning that has grown in prominence throughout the world since the 1980s has been catchment management.<sup>63</sup> The catchment management concept has been used in various forms, being inherent in the policies of soil conservation and river management agencies in Europe, North America, New Zealand and Australia.<sup>64</sup> Total catchment management (TCM) has

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<sup>59</sup> Caring for our Country, *2008-09 base-level funding*, (Australian Government Land and Coasts, Canberra, 2011), <http://www.nrm.gov.au/funding/2008/c4oc-08-09/nsw.html>, viewed 21 May 2011.

<sup>60</sup> Caring for our Country, *Business plan 2009-10 successful projects base-level funding*, (Australian Government Land and Coasts, Canberra, 2011), <http://www.nrm.gov.au/business-plan/funded/09/bp-success-nsw.html>, viewed 21 May 2011.

<sup>61</sup> Caring for our Country, *Business plan 2010-11 successful projects base-level funding*, (Australian Government Land and Coasts, Canberra, 2011), <http://www.nrm.gov.au/business-plan/funded/10/index.html>, viewed 21 May 2011.

<sup>62</sup> Source: derived from the following Caring for our Country documents: *2008-09 base-level funding*, *Business plan 2009-10 successful projects base-level funding* and *Business plan 2010-11 successful projects base-level funding* – available from Caring for our Country, *Funded projects*, (Australian Government Land and Coasts, Canberra, 2011), viewed 21 May 2011,

<sup>63</sup> Hannam, I. and Watkins, W., 'Concepts of total catchment management (TCM) and future directions: The interdepartmental committee (IDC) and the statutory framework for TCM in NSW', (Conference paper presented at *Total Catchment Management in NSW: Is it Working?* University of Wollongong, 12-13 July 1989).

<sup>64</sup> Lundqvist, J. Lohm, U. and Falkenmark, M. (eds.) *Strategies for River Basin Development* (Dordrecht, D., Reidel Publishing Company, 1985); Burton, J. 'The Total Catchment Concept and its Application in New South Wales', (*Proceedings Hydrology and Water Resources Symposium*, Griffith University, Brisbane, 1986); Burton, J. *Strategic River Basin Planning Study: State I. A Methodology for River Basin Management – an Interim Report*, (Centre for Water Policy Research, The University of New England, Armidale, 1988); Howard, R. 'A New Zealand Perspective on Integrated Catchment Management' (*Proceedings of the National Workshop on Integrated Catchment Management*, Australian Water Resources Council Conference Series No.16, 1988); Mitchell, B. 'A Canadian Perspective on Integrated Catchment Management' (*Proceedings of the National Workshop on Integrated Catchment Management*, Australian Water Resources Council Conference Series No.16, 1988).



been seen as a “catch phrase describing a particular methodology of approach to the management of water and other land-based natural resources.”<sup>65</sup> This approach “identifies the catchment or river basin as the basic resource management unit and views it as an integrated system, within which there is a close interaction between water and land resources and their surrounding environment.”<sup>66</sup> Over time, the terminology and concepts applied to catchment management has expanded, so that in practice “catchment management” has evolved into terms with slightly different connotations, including “total catchment management”, “integrated catchment management”, “river basin management”, “integrated basin management” and “catchment management”.<sup>67</sup>

Catchment planning or management has been a key form of biogeographic regional planning that has been significant in NSW. A catchment is defined as:

“... an area where water is collected by the natural landscape. In a catchment, all rain and run-off water eventually flows to a creek, river, lake or ocean, or into the groundwater system. Natural and human systems such as rivers, bushland, dams, homes, plants, animals and people can coexist in a catchment.”<sup>68</sup>

References in NSW to the concept of catchment management go back to the introductory debates to the Soil Conservation Bill in 1938.<sup>69</sup> “The dominant aspect of the introductory debates and discussion on the NSW Soil Conservation Bill was the perception that soil, water and forests needed to be managed on a catchment basis.”<sup>70</sup> As a consequence, the *Soil Conservation Act 1938* contained a number of specific “catchment” provisions.<sup>71</sup> The NSW government’s first official policy position on catchment management – introduced under the term *total catchment management* –

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<sup>65</sup> Burton, J. ‘The Total Catchment Concept and its Application in New South Wales’ (*Proceedings Hydrology and Water Resources Symposium*, Griffith University, Brisbane, 1986).

<sup>66</sup> Ibid.

<sup>67</sup> Laut, P. and Taplin, B. ‘Catchment Management in Australia in the 1980’s’ (*Proceedings of the National Workshop in Integrated Catchment Management*, Australian Water Resources Council Conference Series No.16, 1988); Taplin, B. *Draft Summary Discussion Paper on Catchment Management in the Macintyre Catchment NSW*, (prepared for the Northern Region Total Catchment Management Coordinating Committee, 1988).

<sup>68</sup> Sydney Catchment Authority, *What is a catchment?* (Penrith, SCA, NSW, 2011), <http://www.sca.nsw.gov.au/the-catchments/what-is-a-catchment>, viewed 12 May 2011.

<sup>69</sup> New South Wales, *Hansard*, Debates on the Introduction of the Soil Conservation Bill, 1938.

<sup>70</sup> Hannam and Watkins, above n 63, p 2.

<sup>71</sup> Catchment provisions under the *Soil Conservation Act 1938* included: experimental and research work (s.6), areas of erosion hazard (s.17), protected land (s.21) and catchment committees (s.23).



was outlined in 1987 in the document *Total Catchment Management, A State Policy*, which also contained the State's Tree Policy and Soils Policy.<sup>72</sup>

Subsequently given statutory expression under the *Catchment Management Act 1989* (the 'CM Act'), total catchment management was defined as "the coordinated and sustainable use and management of land, water, vegetation and other natural resources on a water catchment basis so as to balance resource utilisation and conservation."<sup>73</sup> TCM aims to manage the natural resources in a catchment as a whole, so as to promote a healthy and productive catchment system. This is to be achieved by, first, encouraging the protection, and where appropriate, the restoration of a catchment, and second, promoting and facilitating ecologically sustainable use, development and management of natural resources.<sup>74</sup>

Catchment management organizations in NSW have undergone significant transformation. The *Catchment Management Act 1989* set up an administrative hierarchy for catchment management in NSW, at the head of which was the State Catchment Management Coordinating Committee (SCMCC), comprising representatives of all government bodies with an interest in land or water management, as well as representatives from local government and rural and environmental interests.<sup>75</sup> The SCMCC reported to the Natural Resources Subcommittee of Cabinet. At the base of the hierarchy were the various catchment management committees (CMCs) and catchment management trusts (CMTs) – at their numerical peak there were 45 CMCs and three CMTs in NSW. The fundamental difference between a CMC and a CMT was the ability of the latter to levy catchment contributions on land within its area.<sup>76</sup> Following a review of TCM in NSW in 1997, an intermediate level in this hierarchy, in the form of five Regional Catchment Coordinating Committees (RCCCs) was established.<sup>77</sup> These were set up as sub-committees of the SCMCC to ensure a strategic regional focus on natural resource

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<sup>72</sup> Soil Conservation Service of New South Wales, *Total catchment Management, A State Policy*, (Sydney, Government Printer, 1987).

<sup>73</sup> *Catchment Management Act 1989*, s.4.

<sup>74</sup> *Catchment Management Regulation 1999*, cl.5.

<sup>75</sup> *Catchment Management Act 1989*, ss.8 and 9.

<sup>76</sup> *Catchment Management Act 1989*, ss.38-51.

<sup>77</sup> Department of Land and Water Conservation, *Outcomes of the review of Total Catchment Management in New South Wales*, (Sydney, Department of Land and Water Conservation, 1997).



planning on the eastern side of the Great Dividing Range, where individual CMCs were too small to benefit from economies of scale or to ensure a strategic focus on catchment management planning, and formalised the previous informal groupings of CMCs to discuss cross-catchment issues and develop joint solutions.<sup>78</sup>

Whilst the CM Act had, at best, mixed success in attempting to introduce a bioregional approach (in the form of river catchments) to land use planning, more significantly the notion of a bioregion was recognised and incorporated into the *Native Vegetation Conservation Act 1997*, with regional vegetation management plans (RVMPs) required under the Act for various identified bioregions. However, the relationship between RVMPs and EPIs made under the EP&A Act for example, was quite complicated.<sup>79</sup> This one specific example is indicative of a broader malaise in the legislative, policy and institutional/administrative frameworks for natural resource management in NSW.

Further reform was to occur as a consequence of the 1997 review of TCM, when this framework was changed by the dismantling of most of the CMCs and creating 18 Catchment Management Boards (CMBs) in 1999.<sup>80</sup> Legally, the CMBs were created as Catchment Management Trusts, and so possessed all the powers of a Trust under the CM Act.<sup>81</sup> By 2003, just prior to the Minister for Infrastructure, Planning and Natural Resources announcing major reforms to the protection for natural resources, catchment management in NSW was spread between 18 CMBs, the Hunter Catchment Management Trust, two CMCs (the Cocks River and Wollondilly Catchment Management Committees) and the Hawkesbury-Nepean Local Government Advisory Group (which had replaced the Hawkesbury-Nepean Management Trust in 2001). Twenty-one integrated catchment management plans – termed *catchment blueprints* – covering the whole state were prepared by these organizations and endorsed by the NSW Government in late 2002.

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<sup>78</sup> Farrier, D., Lyster, R., Pearson, L., & Lipman, Z., *The Environmental Law Handbook* (3<sup>rd</sup> ed, Redfern, Redfern Legal Centre Publishing, 1999), pp 126-127.

<sup>79</sup> Farrier, D., 'Fragmented natural resource management in NSW', (paper presented at Conference on *The Law: changes and challenges*, University of New South Wales, 26-27 June 1998), p 4.

<sup>80</sup> This occurred under the *Catchment Management Regulation 1999*.

<sup>81</sup> *Catchment Management Regulation 1999*, cl.3(1).



As part of the NSW Government's 2003 natural resource management reforms, new natural resource legislation was introduced – the *Natural Resources Commission Act 2003*, *Native Vegetation Act 2003* and *Catchment Management Authorities Act 2003* – and 72 existing natural resource management bodies – Water Management Committees, Regional Vegetation Management Committees (RVMCs), CMCs, CMTs and CMBs – were replaced by 13 Catchment Management Authorities (CMAs). The impetus for this change arose from the implementation of the recommendations of the Native Vegetation Reform Implementation Group (the 'Sinclair Report').<sup>82</sup> Recognising that "fundamental to the success of a new model for landscape management is simplifying the overwhelmingly complex structures that exist at present",<sup>83</sup> the Sinclair Report advocated significant reforms to the institutional arrangements relating to native vegetation – and natural resource – management in NSW. Several recommendations concerned the establishment and role of CMAs.<sup>84</sup>

Following the passage of the *Catchment Management Authorities Act 2003* ('CMA Act'), CMAs were formally constituted in January 2004 as statutory authorities each with a responsible and accountable board which reports directly to the relevant State Minister.<sup>85</sup> With their establishment, a major function of the CMAs was the preparation of natural resource-based Catchment Action Plans (CAPs).<sup>86</sup> The role the CMAs and their Catchment Action Plans are considered in more detail in Chapter 6 as part of the analysis of more recent legislative and policy reform affecting natural resource and urban growth management in the Sydney Region. More detailed examination of contemporary catchment management and planning at State and local government levels in Sydney is provided in Chapters 7 and 8.

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<sup>82</sup> Department of Infrastructure, Planning and Natural Resources, *Native Vegetation Reform Implementation Group – Final Report*, (Sydney, DIPNR, October 2003).

<sup>83</sup> *Ibid*, p 7.

<sup>84</sup> Recommendations 6-12 of the Sinclair Report related to the establishment and responsibilities of CMAs.

<sup>85</sup> Originally the responsible minister was the Minister for Natural Resources; with the abolition of this department the responsible minister changed – at the time of writing it is the Minister for Climate Change and the Environment.

<sup>86</sup> *Catchment Management Authorities Act 2003*, s.15(a); s.19.



#### 4.2.4 Strategic planning problems – implementation and coordination

Lack of coordination between and within different levels of government is perhaps the greatest barrier to the successful implementation of strategic planning, particularly in its bioregional and natural resource management manifestations. Disjointed, fragmented administration of strategic planning and regulatory control in relation to natural management, for example, has been a major barrier to effective, coordinated, long-term development and land conservation strategies in the past in NSW.<sup>87</sup> This scenario is arguably more pronounced on the fringe, and is not limited to NSW. In the US context “the overlapping jurisdiction of different governments, authorities, and regulatory agencies making piecemeal and often redundant claims over policy making and development permissions in the fringe”,<sup>88</sup> is claimed to be the biggest problem and the most intractable.<sup>89</sup>

In relation to the situation in the US – but with clear parallels with the Australian scene, it has been noted that “Many problems on the fringe are regional ... [yet] most states have missed opportunities to bring local governments together to undertake regional efforts for economic development, infrastructure, and environmental protection.”<sup>90</sup> This coordination becomes more problematic when the areas in question – for example catchments – do not correspond to administrative or political boundaries, which is invariably the case.

The term *integrated catchment management* (ICM) has, for many years, been used synonymously with TCM, having been adopted from the discipline of integrated resource management.<sup>91</sup> From a coordination and implementation perspective, the rationale for ICM (and its alternative label *integrated water resource management* – IWRM), has been described in the following terms:<sup>92</sup>

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<sup>87</sup> Farrier, D. ‘Fragmented Law in Fragmented Landscapes: the Slow Evolution of Integrated Natural Resource Management Legislation in NSW’, (2002) 19 *Environmental and Planning Law Journal* 89.

<sup>88</sup> Daniels, TL., *When City and Country Collide: Managing Growth in the Metropolitan Fringe* (Washington, D.C., Island Press, 1999), p 137.

<sup>89</sup> *Ibid*, p 137.

<sup>90</sup> *Ibid*, p 137.

<sup>91</sup> Hannam and Watkins, above n 63, p 2.

<sup>92</sup> Australian Water Resources Council (*Proceedings of the National Workshop on Integrated Catchment Management*, Australian Water Resource Council Conference Series No.16, 1988).



- The need to refrain from considering water, land and environmental resource problems in isolation because these factors are interrelated.
- Despite the inter-relationships among natural resources, public agencies traditionally have been created with mandates which focus them upon a specific resource. Resulting overlap of responsibilities, together with a lack of awareness of each agency's responsibilities can result in the activities of one agency inadvertently undoing the work of another.
- No matter how public agencies are structured, there will be some overlap or shared interests – creating what often are referred to as edge or boundary problems. A major issue is to determine how to plan, manage and develop natural resources in the context of such problems.

Integrated natural resource management on a catchment basis – that is, IWRM or ICM – thus raises a number of operational or implementation questions. Firstly, what framework or approaches can be used to overcome the predisposition of resource-based agencies not to connect with other organisations with shared interests and overlapping responsibilities? In other words, how can the institutional impediments to policy integration be overcome? Secondly, if IWRM/ICM can benefit from a closer connection to land-use planning, how should or could water management and land use planning be interrelated?

Water management is too often fragmented among sectors and institutions, with little attention to conflicts or complementarities among social, economic and environmental objectives.<sup>93</sup> The identification of a 'silo-effect' among resource-management agencies reinforces the rationale for an integrated approach to water management.<sup>94</sup> Multiple agencies are the norm, and it is common for issues related to water quantity and quality, and concerns about health and the environment, to be handled separately.

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<sup>93</sup> Serageldin I., *Toward Sustainable Management of Water Resources* (Washington DC, World Bank, 1995), p 5.

<sup>94</sup> The term 'silo effect' is used to describe the separation of functions and authority among different agencies, and the inclination of agencies to protect their functions and authority from possible intrusion by other agencies. Such an approach does not encourage a holistic approach, as each agency is concerned only about what is within its own 'silo', and does not consider possible connections with what other agencies have in their silos. In the field of resource management therefore, the term describes or characterises the separation of responsibilities among resource-management agencies as well as their inability or unwillingness to consider their mandate relative to those of other organisations.



“Spatial interconnections are also often disregarded, as when individual states or provinces have jurisdiction over water within their territory, but do not consider the consequences when the same water system is shared by a ‘downstream’ state or province.”<sup>95</sup>

Many water problems have their origins in land use or other related activity, and vice versa, making it essential for land-use planning to be connected with water planning. The presence of a silo effect, or fragmented responsibilities – from one level of government to another, referred to as *vertical fragmentation*, or among different agencies within one level of government, termed *horizontal fragmentation* – provides a strong reason to seek integration through coordination and collaboration. Pointedly, a prominent example of vertical and horizontal fragmentation apparent in the international literature on IWRM/ICM is the management of the Hawkesbury-Nepean catchment in the Sydney metropolitan area.<sup>96</sup>

The existence of a silo effect or fragmentation highlights the presence of boundaries or edges between agencies. Arguably, the major challenges for management are at the boundaries or edges, which may be defined as situated between levels of government, agencies, or divisions within departments.<sup>97</sup> While problematic, the challenge of policy and institutional coordination at the boundaries or edges is not insurmountable. Aspiring to remove boundary effects through re-organisation is futile, as it is not possible to remove boundaries or edges: when restructuring organisations, boundaries or edges are moved, not removed. Each structural option offers advantages and disadvantages, but none is boundary free. Accordingly, it is essential to devise policy mechanisms or processes, such as through IWRM/ICM, to address the difficulties created by boundary problems.

The second issue relating to the coordination of growth management policy at the catchment level is the connections between integrated watershed management and land-use planning. Because aquatic and terrestrial systems are closely linked, they

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<sup>95</sup> Mitchell, B., ‘Integrated water resource management, institutional arrangements, and land use planning’, (2005) 37 *Environment and Planning A*, 1335 at 1340.

<sup>96</sup> Ibid, p 1341.

<sup>97</sup> Eddison T., ‘Managing an ecological system 5: reforming bureaucracy’, (1985) 57 *Australian Quarterly* 148 at 149.



should therefore be considered together when framing land-use options, or planning for water management. However, there is a further reason why integrated water management is likely to be more effective if linked to land-use planning or to official plans, namely:

Experience has shown that, after considerable time and effort have been allocated to IWRM watershed planning, there often is relatively little action. The principal reason is that frequently the IWRM plan has no obvious 'home' or legal basis, and therefore has low legitimacy ... The implication is that connecting to statutory-based land-use planning has the potential to improve the effectiveness of IWRM. Where IWRM has been connected to the statutory base of land-use planning and official plans at the local level, progress can be significant...<sup>98</sup>

The need to be connected to the statutory land-use and regional planning system to assist in achievement of credibility, acceptance and implementation, is not unique for IWRM/ICM, but is also recognised by those with other interests, ranging from agriculture, spatial and environmental policies, and protected areas and biodiversity. Efforts to improve institutional coordination, achieve land use planning reform and integration of the land use planning and natural resource management systems at strategic and development control levels, specifically pertaining to biodiversity and catchment management in NSW, are considered in detail in Chapter 6.

### **4.3 Regulatory approaches**

Examined firstly here is a brief recapitulation of regulatory theory, albeit distilled to specifically consider the conceptual basis of the regulatory approach to planning – in particular as applied to urban growth management. Secondly, this section reviews some of the regulatory instruments utilised for urban growth management in Australia as well as some pertinent examples from the US and Britain, specifically with a view to identifying any 'gaps' or differences which may be considered to augment the existing regulatory approach to managing the natural resource impacts of urbanisation in Australia. Thirdly, comparisons of the tools themselves as used in the three countries are drawn, and the opportunities they may provide for managing the growth of Sydney is deliberated.

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<sup>98</sup> Mitchell, above n 95, pp 1344-1345.



#### **4.3.1 Conceptual basis of regulatory instruments applied to urban growth and natural resource management**

Underpinning the regulatory approach to planning is reliance on traditional ‘command and control regulation’. Chapter 3 of this thesis dealt with regulatory theory in some detail, including a consideration of command and control regulation. For this reason, the discussion here is more focussed on the types of regulatory instruments available for the implementation of urban growth management objectives: objectives which include the conservation of natural resources and environmental protection.

Historically, regulation has been the most common approach adopted for the implementation of planning and environmental objectives. Regulation has taken many forms. Initially in the narrower sense of ‘town planning’, regulation involved the exercise of public control over matters such as building, subdivision and land use through the use of zoning and other statutory based controls. Specifically, building regulation was exercised through a range of controls including building height, density, materials and setbacks. Subdivision regulation was manifested in the form of controls such as minimum allotment sizes, density of subdivision and building erection, and minimum site frontages. Land use has been regulated primarily through land use zoning and planning standards (or development standards, as they are called in NSW). With the expansion of ‘planning’ into the broader fields of environmental planning and protection and natural resource management, these traditional tools have been extended, augmented and refashioned, but the characteristic ‘regulatory’ approach largely remains. The regulation of land use still remains at the core of environmental law.<sup>99</sup>

The regulatory approach basically entails the establishment of a framework of statutory law and consequential delegated legislation which restricts land use and development. Regulation may occur through statutory based planning laws – that is a generally applicable statutory planning framework such as that provided in NSW by the *Environmental Planning and Assessment Act 1979* that establishes a development

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<sup>99</sup> Farrier, D. & Stein, P., *The Environmental Law Handbook*, (4<sup>th</sup> ed, Sydney, Redfern Legal Centre Publishing), p 7.



control system for all land and its uses – or specific legislation that relates to particular natural resource management, conservation and environmental protection issues. Ramsey and Rowe in particular, emphasise specifically designed statutory regimes for particular resources as one of the tools available to planners and natural resource managers.<sup>100</sup> These include custom-made regimes for resources such as minerals, water, coasts, conservation areas, biodiversity, vegetation, soils, agriculture, heritage areas and buildings.

#### **4.3.2 Development control/statutory planning**

The emphasis on regulation, which has predominated in Australian planning systems, derives from the traditional British system. Regulation through statutory planning continues to have its advocates for both philosophical and practical reasons. From a conceptual perspective, regulation of development – ‘development control’ – is seen as fundamental to planning;<sup>101</sup> at the same time, from a practical viewpoint, it is argued that regulation and prescriptive planning controls promote greater certainty and consistency in decision-making.<sup>102</sup>

Development control in NSW operates within the framework of what can be described as a *regulatory based statutory planning system*. In other words development control is founded on statutory acts of the NSW Parliament – primarily the *Environmental Planning and Assessment Act 1979* – and is implemented by the regulation of development through a system of planning permission or development consent, which relies on tools such as zoning and planning standards.

Under the NSW development control process, biodiversity for example is one of many matters to be considered when assessing and determining individual development proposals. When assessing development applications using Part 4 of the EP&A Act for instance (under which most development falls), a seven part test is required to determine if the proposal is likely to significantly affect threatened

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Ramsey, R. and Rowe, G., *Environmental law and policy in Australia: text and materials*, (Sydney, Butterworths, 1995), pp 119-120.

<sup>101</sup> Dawkins, J., “In praise of regulation” (1996) 33(1) *Australian Planner* 10.

<sup>102</sup> Walton, J., “In praise of certainty” (1997) 34(1) *Australian Planner* 12.



species, populations or ecological communities or their habitats.<sup>103</sup> However, there are some potential deficiencies in relying purely on the development control system to seek to achieve biodiversity protection. First, the consent authority can proceed to determine the application without the need for a species impact statement if the ‘significance test’ indicates no significant impact, and considers biodiversity as just one of many factors to be weighed up under s 79C(1)(b) of the Act. Second, the system can be flawed if the assessment is not based on sufficient or accurate information. Third, a lack of available data, such as vegetation mapping and flora and fauna surveys at a more regional scale, or data detailed enough for assessment purposes, may mean that the ‘significance test’ can be subjective and the assessment of cumulative impacts difficult. Fourth, the seven part test is normally paid for by the applicant, which could potentially influence the objectivity of the study’s conclusions. Finally, council staff assessing a development application may not have the expertise to determine if the seven part test study was adequate and its conclusions accurate. The flaws in this system of development control-based biodiversity management point to the need for a more strategic landscape-based approach.<sup>104</sup>

### **4.3.3 Land use zoning and development standards**

Despite the deficiencies of land use zoning (discussed in Chapter 3), in an urban growth management context it remains an essential tool within the planners’ toolkit. “The delineation of areas separated from each other by the device of zones is a logical consequence of the need to prescribe different uses of land for different areas and also to separate discordant or incompatible use.”<sup>105</sup> Zoning – “the device responsible for the ‘spatial allocation of land uses’”<sup>106</sup> – and other forms of planning regulation such as statutory-based development or planning standards, form the cornerstone for the implementation of any growth management strategy. In this sense, Australia is fortunate to have retained a strong zoning tradition, based on the pre-Wold War II

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<sup>103</sup> This ‘seven part test’ is applied in accordance with the *Environmental Planning and Assessment Act 1979* (NSW), s.5A.

<sup>104</sup> Connolly and Fallding, above n 52, p 130.

<sup>105</sup> Stein, L., *Principles of Planning Law*, (South Melbourne, Oxford University Press, 2008), p.33.

<sup>106</sup> *Ibid*, p 9.



British statutory planning control heritage.<sup>107</sup> The confidence and comfort provided to planners by zoning does not mean however, that other tools – regulatory, market-based economic and fiscal instruments, and strategic planning – should not be added into the mix of available policy instruments to manage urban growth. Flexibility in choice and combination of techniques remains crucial in order to best achieve urban growth management goals.

Land zoning as utilised in NSW in local environmental plans (LEPs) and other environmental planning instruments (EPIs) has been criticised for being driven by development and growth imperatives, not environmental protection, natural resource management and biodiversity conservation considerations, and thus serving as a ‘filter’ for development.<sup>108</sup> However, there is emerging judicial recognition that appropriate zoning does not automatically presume that permissible development should, in theory, be approved. In *BGP Properties Pty Ltd v Lake Macquarie City Council* [2004] NSWLEC 399 the NSW Land and Environment Court held that, in relation to some land zoned for development a considerable time ago and without appropriate environmental assessment, a particular development project might not be feasible because, despite the permissive zoning, it fails to meet species protection requirements.<sup>109</sup> Accordingly the Court refused development consent as it would harm biodiversity, even though the project was proposed on land zoned for development. Development approval, not zoning, was inferred to constitute the conferral of a right to develop.<sup>110</sup> Yet, despite this recent judicial expression to the contrary, historically the town planning roots of the land-use regulatory system have

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<sup>107</sup> See for example: Starke, J., *The Law of Town and Country Planning in New South Wales*, (Sydney, Butterworths, 1966), p 39; Gleeson, B. and Low, N., *Australian Urban Planning: New Challenges, New Agendas*, (St Leonards, NSW, Allen & Unwin, 2000), p 145.

<sup>108</sup> Robinson, above n 50, p 214.

<sup>109</sup> In *BGP Properties Pty Ltd v Lake Macquarie City Council* [2004] NSWLEC 399 the Court found in part that:

“[115] The context in which the issues in this case must be resolved includes the history of the use of the land and the contribution which it now makes to the existing natural environment. Although zoned industrial, that zoning was imposed at a time when the community’s understanding of the significance of some elements of the natural environment was not as mature as it now is. Consideration of matters of inter-generational equity and the conservation of both biological diversity and the ecological integrity of land were not such significant elements of environmental decision-making as they are today ... [119] [Thus] there will be cases where, because of the history of the zoning of a site, which may have been imposed many years ago, and the need to evaluate its prospective development having regard to contemporary standards, it may be difficult to develop the site in an environmentally acceptable manner and also provide a commercially viable project.”

<sup>110</sup> *BGP Properties Pty Ltd v Lake Macquarie City Council* [2004] NSWLEC 399 at 115-119.



given rise to expectations that zoned land for development ought to be able to be developed, even if biodiversity or other environmental assessment paid little role in the development of that zoning.<sup>111</sup> Thus the approach in *BGP Properties* is rarely followed.<sup>112</sup> “More usually, consent authorities regard zoning as granting rights, and accept the arguments of developers that to deny development even of land inappropriately zoned for development would be unfair.”<sup>113</sup> This heavy bias in the land development system in favour of development needs to be addressed so that the presumption that zoning entitles development is removed and replaced by the more considered approach to zoning found in *BGP Properties*.

In NSW, it has been argued that a major cause of biodiversity loss is State and local government failure to identify biodiversity values comprehensively and then plan to conserve them through responsive environmental planning instruments in an across landscape approach. This has been largely due to a fear of public outcry if land is ‘down zoned’ or its potential use is restricted, a consequent lack of political will, and limited local council resources and State government support.<sup>114</sup>

Development standards such as enunciation of minimum allotment size in subdivisions are an additional layer of development regulation used in conjunction with land use zoning to achieve planning objectives. Large lot size minimums (commonly set at either 40ha or 100ha under planning instruments in NSW) are often designed to protect agricultural, scenic or vegetated lands from clearance, fragmentation through subdivision and residential development. Conversely, smaller minimum lot sizes have been adopted in many new release areas to achieve higher residential densities – i.e. urban consolidation – in order to retard the rate of urbanisation.<sup>115</sup> However, an examination of smaller residential lot sizes in new

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<sup>111</sup> Robinson, above n 50, p 215.

<sup>112</sup> See for example, *BTG Planning v Blacktown City Council* [2008] NSWLEC 1500 where, contrary to the finding in *BGP Properties*, the Court ruled that while accepting “that legislation protecting threatened species and endangered communities must be superimposed on planning legislation, in the ordinary course of events residential zoning indicates that the land can be developed for housing.” [Emphasis added].

<sup>113</sup> Robinson, above n 50, p 230.

<sup>114</sup> Connolly and Fallding, above n 52, p 129.

<sup>115</sup> See for example the *Growth Centres Development Code*, produced by the Growth Centres Commission to guide the planning and urban design in the North West and South West Growth Centres, which imposes net residential density targets ranging from as low as 12.5 dwellings per hectare to as high as 66 dwellings per hectare – see NSW Department of Planning and Infrastructure,



residential subdivisions (in South-East Queensland) has been demonstrated to have unintended adverse impacts on biodiversity retention and habitat protection, with low-density form of suburban development subsequently recommended as this provides more habitat opportunities for fauna.<sup>116</sup> A possible solution to this apparent paradox of subdivision size where new residential development occurs is to combine both large and small lots into subdivisions, in the form of ‘cluster subdivision’ available under community title legislation in NSW, discussed further below.

#### **4.3.4 Urban containment – growth boundaries and green belts**

Two different types of urban containment programs intended to limit urban sprawl may be distinguished: urban growth boundaries and greenbelts.<sup>117</sup> Urban growth boundaries typically are designed to accommodate the urban development of a city or town over a prescribed period (for example twenty years) and are accompanied by a variety of growth management techniques (such as zoning and restrictions on physical infrastructure provision) intended to ensure efficient urban development within those boundaries. Greenbelts, on the other hand, have traditionally served two purposes: they prevent low-density urban development in the countryside, and they provide urban residents with a variety of benefits, such as air-cleansing and flood control, food and wood production, recreation, and scenery. In the British context, greenbelts may be used only for farming, forestry, recreation, and other open space activities.<sup>118</sup> Interestingly, historically nature conservation has not rated strongly as a reason for designation of greenbelts, though biodiversity protection is of course a consequence of such restriction on new development.

Restrictions or prohibitions on urban growth – through designation of greenbelts and urban growth boundaries – may be implemented through the reliance on the general statutory planning system (specifically land use zoning and development controls) and/or specific legislative enactment. Greenbelts may also be established by the

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*Growth Centres Development Code*, (Parramatta, Growth Centres Commission, 2006), p A-4, <http://www.gcc.nsw.gov.au/report-27.html>, viewed 22 May 2011.

<sup>116</sup> Moroney, J. and Jones, D., ‘Biodiversity space in urban environments: Implications of changing lot size’ (2006) 43(4) *Australian Planner* 22.

<sup>117</sup> Nelson, A., ‘Using Land Markets to Evaluate Urban Containment Programs’ (1986) *Journal of the American Planning Association* 156.

<sup>118</sup> Hall, P., *The Containment of Urban England*, (London, Allen and Unwin for PEP; Beverley Hills, Sage, 1973).



compulsory acquisition of land (either for open space or national park uses, for example), or the purchase or transfer of development rights pertaining to land (commonly used in the US).

An urban growth boundary (UGB) is a legal boundary separating urban land from rural land. In the US context, an urban or town growth boundary has been described as having “the potential to serve as the centrepiece for managing regional growth and controlling sprawl over the long run ... [it is] the key land-use planning technique to effect major change in managing growth.”<sup>119</sup> Growth boundaries have been used for about forty years in States such as Kentucky (Lexington), Nebraska (Lincoln) and Oregon (Portland). Under Oregon law, each city or metropolitan area in the state has an urban growth boundary, devised as one of the tools used to protect farms and forests from urban sprawl and promote the efficient use of land inside the growth boundary.<sup>120</sup> Portland metropolitan region’s UGB is managed by the Metro Council, and is required by state law to have a 20-year supply of land for future residential development inside the boundary. Every five years, the Metro Council is required to conduct a review of the land supply and, if necessary, expand the boundary to meet that requirement.<sup>121</sup>

Often a growth management strategy involves the use of a variety or hybrid of tools and approaches. For example, Lancaster County in Pennsylvania pioneered the use of purchase of development rights to reinforce sections of its urban growth boundaries.<sup>122</sup> Because the purchase of development rights is a voluntary program between landowners and the County, the potential for violation of the takings provision of the Fifth Amendment of the US Constitution did not arise. Under this and other such schemes, the County bought development rights in perpetuity and restricted the use of the affected land to farming and open space. In reality however, the situation facing the fringe in the past is that a large number of small, deficient

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<sup>119</sup> Daniels, above n 88, p 187-8.

<sup>120</sup> Metro Council, *Urban growth boundary*, (Portland, Oregon, Metro Regional Council, 2011), <http://www.oregonmetro.gov/index.cfm/go/by.web/id=277>, viewed 23 May 2011.

<sup>121</sup> Ibid.

<sup>122</sup> Daniels, above n 88, p 203-4.



town and country governments have to contend with development problems that are simply too big for them to handle.<sup>123</sup>

Alone, growth boundaries are not a panacea. For this mechanism to function well, zoning in particular must be incorporated in a way that reinforces a growth boundary. Thus, if the countryside beyond a growth boundary is not suitably zoned (that is, it prohibits various forms of ‘urban’ development such as small-lot rural-residential subdivision, commercial, industrial and special use developments such as schools), then a considerable amount of development will simply leap over the boundary and locate in the country. This will result in a continued spread of urban sprawl, which will eventually defeat the purpose of a growth boundary. In other words, obviously a growth boundary can only work effectively if the majority of growth winds up within the boundary. Nonetheless, the real long-term threat to the growth boundary approach is a large increase in population: if the boundary has to expand dramatically to accommodate sharply rising numbers of people, then sprawl will occur.

In the case of Sydney, the establishment of what is effectively an urban growth boundary has been advocated for Western Sydney by the Western Sydney Regional Organisation of Councils (WSROC).<sup>124</sup> In response to the need to protect rural and agricultural resources, and conserve natural environments and systems, WSROC in its 2005 strategic planning vision for Western Sydney *FutureWest*, argued for the establishment of “an ‘urban/rural edge’ within statutory State plans showing the extent of urban expansion in the life of a regional strategy and the basis for separation between these two uses.”<sup>125</sup>

One of the preconditions essential to the success of urban growth boundaries is the restriction of infrastructure provision – particularly public sewer, water and drainage – beyond designated growth boundaries. As part of the operation of a growth boundary agreement between different government agencies and levels of government, such urban services should not be extended beyond the growth boundary – though the

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<sup>123</sup> Doherty, J. ‘The Countrified City’, (1984) 2(4) *American Demographics* 7.

<sup>124</sup> Interview with Sharon Fingland, Assistant Director, Western Sydney Regional Organisation of Councils (WSROC) (Blacktown, 13 August 2007).

<sup>125</sup> Western Sydney Regional Organisation of Councils (WSROC), *Future West, Final Report*, (Blacktown, Western Sydney Regional Organisation of Councils Ltd, 2005), p 72.



boundary itself may change over time. This is important so as to create a strong incentive for developers to look inside the boundaries for developable land rather than search for greenfield sites in the countryside that promotes sprawl. Clearly, the growth boundary approach complements urban consolidation/densification programs, and so requires that an adequate supply of developable in-fill and brownfields sites are available for building projects within existing urban areas.

A number of matters must be considered and addressed in order to guarantee the success of the growth boundary tool. These matters include phasing of development within the growth boundary, limiting development in the countryside, permanency of a growth boundary, the need for regional planning, and the utilisation of land use zoning. Daniels has identified a number of major obstacles that local governments must overcome in order to implement effective growth boundaries.<sup>126</sup> While commenting on the US situation, these obstacles have a resonance generally with the application of urban growth boundaries in other jurisdictions. The obstacles are:<sup>127</sup>

- Lack of state enabling legislation
- Difficulty in reaching cooperation among local governments
- Need for good information on population and land-use needs
- Opposition from landowners outside of proposed or potential boundaries
- Opposition from developers
- Opposition from people living inside the growth boundary
- Lack of public education and communication by planners and politicians
- Existing development patterns
- Timing

Similar obstacles confronting the dedication of growth boundaries have bedevilled State and local governments in NSW. The demise of the ‘green zone’ – effectively a partial green belt in Sydney’s Growth Centres – has already been mentioned. Further examples of the difficulty in seeking to contain Sydney’s urban growth – such as the loss of Sydney’s green belt in the early 1960s,<sup>128</sup> pressure on the NSW Government by developers for land releases outside designated growth areas, and demands by landowners for local councils to rezone land for urban development – are described in later chapters in this thesis.

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<sup>126</sup> Daniels, above n 88.

<sup>127</sup> Ibid, p 196.

<sup>128</sup> Toon, J. and Falk, J., *Sydney: Planning or Politics. Town Planning for the Sydney Region Since 1945*, (Sydney, Planning Research Centre, University of Sydney, 2003).



#### 4.3.5 Community title subdivision

Growth management through the clustering or concentration of development and the protection of undeveloped portions of land is available by means of appropriate land titles legislation. Community title legislation for example permits subdivision which allows group ownership over land whereby dwelling allotments remain small and clustered while the remainder of the land – generally in the form of a large residual lot – is held as common property used for a different purpose.<sup>129</sup> Community title subdivision can be used to achieve several planning objectives in exurban areas such as manage rural residential development, protect farmland and rural productivity, retain significant areas of native vegetation and limit habitat fragmentation, and protect open space/scenic landscapes.

The *Community Land Development Act 1989* introduced innovative and flexible land development options in NSW through the creation of community titles. Previously there were only two modes of subdividing land in NSW, the subdivision of land under the *Local Government Act 1919* and strata subdivisions under the *Strata Titles Act 1973*.<sup>130</sup> This third mode of subdivision adopts several features of the other modes of subdivision, including the management mechanisms which apply under strata title. Conversely, community land development is not restricted by some of the limiting features of ‘traditional’ land and strata subdivisions: under land subdivision it is impossible to make provision for shared common property, whilst under strata development it is not possible to allow mixed developments with for example residential and non-residential uses. “Community land development overcomes these limiting features by permitting the division of a parcel of land into allotments, at the same time making provision for shared common property, and further, allowing land in the same development to be used for different purposes.”<sup>131</sup> Community titling has been advocated for planning in urban-rural fringe areas in NSW, particularly in

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<sup>129</sup> McKenzie, F., ‘Growth management or encouragement? A critical review of land use policies affecting Australia’s major exurban regions’ (1997) 15(2) *Urban Policy and Research* 83.

<sup>130</sup> Lang, A., *Estate agency law and practice in New South Wales*, (4<sup>th</sup> ed, North Ryde, NSW, The Law Book Company, 1991), p 115.

<sup>131</sup> Mendes, P., *Real Estate and Estate Agency Law in NSW*, (3<sup>rd</sup> ed, Melbourne, Longman Professional, 1993), p 353; *Community Land Development Act 1989* (NSW) s 4(1).



relation to rural-residential development,<sup>132</sup> where the potential for conserving biodiversity, and protecting agricultural land and rural landscapes through this subdivision form has been recognised.

#### **4.3.6 Right-to-farm legislation**

A specific statutory approach to protect rural land which has been implemented in the US and some jurisdictions in Australia is 'right-to-farm' legislation. Conflicts between farmers and new residents to the fringe (for example in relation to noise, dust, odours, chemical sprays, slow-moving machinery associated with farming activities) has led to many states in the US enacting right-to-farm laws to protect farmers from nuisance actions "if they employ standard farming practices that do not violate state and federal laws."<sup>133</sup> Right-to-farm laws vary from state to state – some states for example do not protect a farmer from nuisance actions if the farmer significantly changes the farm operation.

Conceptually, right-to-farm legislation provides an interesting – and targeted – recent use of government statutory powers to protect farmers from common law nuisance actions taken (generally) by neighbours. The premise of such legislation is the protection of farmers' property rights, and may involve both forms of state regulation based on the competing Hobbesian and Lockean views of the state, regulation and laws, freedom and property. That is, right-to-farm legislation may take the Lockean view of negative property rights and consequential negative regulation (that is, 'freedom from' interference) or the Hobbesian view of positive property rights and regulation (that is, 'freedom to' decide).<sup>134</sup>

Irrespective of these conceptual fine points, it has correctly been identified that right-to-farm legislation has significant deficiencies. In essence, while it removes the right of a person to bring an action in nuisance against a farmer and so protects a farmer's right to use land to harm, it does not actually resolve the conflict between land users.

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<sup>132</sup> NSW Department of Urban Affairs and Planning, *Better rural residential development*, (Sydney, DUAP, 2001).

<sup>133</sup> Daniels, above n 88, p 150.

<sup>134</sup> Bell, M. and Lowe, P., 'Regulated freedoms: the market and the state, agriculture and the environment', (2000) 16 *Journal of Rural Studies* 285 at 291.



“The source of the conflict, incompatible land use, persists and is unlikely to be resolved through such legislation.”<sup>135</sup> Right-to-farm legislation has been described as being reactive in nature rather than a strategic forward planning tool and, as it has had little effect on the frequency of rural land use conflict arising, and is seen as “no substitute for developing and implementing proper land use planning strategies.”<sup>136</sup> Nevertheless, instances of such legislation can be found in Australia in Tasmania,<sup>137</sup> and Western Australia.<sup>138</sup> An attempt to introduce legislation in NSW via a Private Member’s Bill in March 2006 was defeated in 2006 in the Legislative Assembly of the NSW Parliament.<sup>139</sup>

## 4.4 Market-based and economic approaches

Fiscal and voluntary (or market-based) approaches to manage adverse human impacts, including urban growth, on natural resources include financial incentives, compensation, taxation measures, tradeable offsets, and the acquisition of freehold title (generally compulsorily) and of specific development rights (generally voluntarily). Thus, one suite of growth management techniques involves the voluntary acquisition of the development potential or ‘rights’ pertaining to land. These rights may be acquired either through purchase by a public agency (that is, purchase of development rights – PDR), purchase by a private developer and transfer to another parcel of land (that is, transfer of development rights – TDR) or by donation by the landowner to a public agency (that is, ‘donated’ development rights,<sup>140</sup> also generally referred to as conservation covenants in Australia or conservation easements in the United States<sup>141</sup>). By way of clarification, this latter tool does not necessarily infer donation of development rights as a gift, as some payment may be involved. Rather,

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<sup>135</sup> McNeil, H., ‘Does the Environmental Planning and Assessment Act 1979 (NSW) or right to farm legislation provide a solution to the issue of rural land use conflict?’ (2006) 12 *Local Government Law Journal* 98 at 104.

<sup>136</sup> Ibid, p 104.

<sup>137</sup> *Primary Industry Activities Production Act 1995* (Tas).

<sup>138</sup> *Agricultural Practices (Disputes) Act 1995* (WA).

<sup>139</sup> Protection of Agricultural Production (Right To Farm) Bill 2006 (NSW).

<sup>140</sup> Wright, JB., ‘Conservation easements: an analysis of donated development rights’ (1993) 59(4) *Journal of the American Planning Association* 487.

<sup>141</sup> Gunningham, N. and Grabosky, P., *Smart regulation: designing environmental policy* (Oxford University Press, Oxford, 1998), p 318. Perhaps the best-established example of the use of this mechanism in Australia are conservation covenants derived from the *Victorian Conservation Trust Act, 1972* and operated by the Victorian Trust for Nature. For a general discussion of conservation covenants and easements in Australia, see Industry Commission, *Inquiry into Ecologically Sustainable Land Management* (Commonwealth of Australia, Belconnen ACT, Report No.60, 27 January 1998).



it is donated in the sense that the landowner freely chooses to have a covenant placed on their land and may benefit from some form of compensation or stewardship payment. Voluntary-based policies and incentives to achieve natural resource management and land preservation objectives may be contrasted with other market-based approaches such as tradeable offsets which are more reliant on regulation to ensure their implementation. This nuance of different market-based and economic approaches is discussed further below.

#### **4.4.1 Conceptual basis of fiscal and market-based tools**

Economic mechanisms include a range of fiscal and market-based tools, which involve the assignment of a monetary value, and hence a basis for transfer, of the management responsibility for the protection of natural resources. Responsibility for the protection and management of natural resources in this context is governed by either ‘who pays’ or alternatively, who is the recipient of a financial benefit or payment, depending on the nature of the mechanism employed. Thus, in the case of compulsory acquisition of land for conservation purposes for example, the public resumption agency acquires management responsibility, while in the case of a transfer of development rights scheme or a taxation benefit, it is the private beneficiary/owner who should assume management responsibility.

Any consideration of market-based tools must take place within the context of acknowledging and confronting property rights and the various (largely regulatory) options to environmental and natural resource management. These options include ‘command and control’ regulation, self-regulation, voluntarism, education and information disclosure, economic instruments, and free market environmentalism.<sup>142</sup> TDR for example is described as a property rights-based tool since a development ‘right’ may be perceived as one of a number of rights accruing from ownership or other interest in property. Fundamental differences however, can be identified in the practical application and consequences of the concept of property rights. Specifically property rights have, depending on the approach taken, been ascribed as constituting

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<sup>142</sup> Gunningham and Grabosky, above n 141.



an example of an economic instrument<sup>143</sup> or alternatively, of being a manifestation of free market environmentalism.<sup>144</sup>

Under the laissez-faire land management regime of free environmentalism, development rights are argued to be compensable if restricted in any way, such as through land use regulation. However, under a more moderate economic or market-based instruments perspective, property rights may be purchased and/or transferred, in accordance with, if necessary, a regulatory-mandated scheme. In this sense, many forms of economic instruments – including property rights and market creation – have been envisaged as a hybrid between free market environmentalism and direct regulation,<sup>145</sup> or even as market-based variants of regulation, rather than alternatives to regulation.<sup>146</sup> It is within this fusion of mixed economic instruments and regulation – which has been termed ‘smart regulation’<sup>147</sup> – that tools such as TDR and tradeable offsets should be posited. Thus, to the extent that such tools require the active involvement of regulators to work, they clearly fall within the scope of economic or market-based instruments rather than free market environmentalism, despite their conceptual basis in property rights.<sup>148</sup>

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<sup>143</sup> Economic instruments (also termed market-based instruments) include property rights; market creation (that is, creation of a market by government where none previously existed – for example of tradeable pollution or resource rights and certain offset arrangements); fiscal instruments and charge systems; financial instruments; liability instruments; performance bonds; and deposit refund systems. Within the context of the agricultural industry for example, Gunningham and Grabosky (above n 141, pp 317-319) identify the following economic instruments: exclusive use rights; individually transferable property-right mechanisms; covenants and easements; offset arrangements; and leasing and licensing.

<sup>144</sup> ‘Free market environmentalists’ “argue not only in favour of a more precise allocation and specification of property rights, ... but also for the substitution of free markets for legislative solutions, to regulate the exploitation of virtually all natural resources and sources of pollution” (Gunningham and Grabosky, above n 141, p 84). Economic instruments can be clearly distinguished from free market environmentalism “in that the regulator still dictates environmental aims through the manipulation of price signals or tradeable permits” (Gunningham and Grabosky, above n 141, pp 83-4).

<sup>145</sup> Kinrade, P., ‘Towards Ecologically Sustainable Development: The Role and Shortcomings of Markets’ in Eckersley, R. (ed), *Markets, the State and the Environment: Towards Integration*, (Melbourne, Macmillan Education Australia, 1995), p 96.

<sup>146</sup> Gunningham and Grabosky, above n 141, p 83.

<sup>147</sup> Ibid.

<sup>148</sup> Even if it is accepted that economic instruments may be effectively used in conjunction with regulatory approaches to create a hybrid between free environmentalism and direct regulation (or alternatively, a hybrid of regulation), a number of provocative policy issues surrounding their use still remain. In particular, the related issues of compensation and who should pay for the (perceived high hidden) costs of conservation imposed by command and control regulation need to be resolved. Here, the benefit of ‘low expenditure’ conservation through a (normally voluntary) market-based approach that provides for some form of compensation is advocated. This approach, it is argued, is less costly, respects the notion of property rights and is consistent with a related ‘user pays’ principle to regulation and conservation. It thus addresses the contentious policy question of whether “government should



Increasingly, a hybrid approach of regulatory and policy-based economic instruments is being used in the areas of environmental protection and resource management in Australia.<sup>149</sup> At a national level, the use of market-based instruments in natural resource management was investigated by the Commonwealth Departments of Agriculture, Fisheries and Forestry and the Environment and Heritage, as part of the National Action Plan on Salinity and Water Quality (2002),<sup>150</sup> and also advocated by groups such as IUCN (the World Conservation Union).<sup>151</sup> These economic instruments have mainly included trading mechanisms such as tradeable offsets, which can take several specific applications such as carbon (greenhouse gas) trading, salinity and native vegetation protection and regeneration. Offsets schemes, in terms of their characteristics and NSW examples, are discussed in more detailed further below.

#### 4.4.2 Fiscal and market-based tools and property rights

The concept of property rights is integral to schemes such as the transfer and purchase of development rights. Faced with the power and influence of the property rights movement (along with the relative weakness of zoning), in the US the challenge to land use managers and planners has been to devise planning mechanisms which respect the integrity of private property on the one hand, and yet still achieve public objectives in resource and environmental planning and policy on the other. It is the contention of this thesis that similar challenges are emerging in Australia. It is in this context that creative ideas and mechanisms such as transfer of development rights,

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regulate land in the public interest at public expense or at the expense of the landowner. That is, when land use options are restricted by regulation in the private interest, should the landowner be compensated for the loss?' (Stroup, RL., 'The Economics of Compensating Property Owners' (1997) 15(4) *Contemporary Economic Policy* 55 at 55). In Australia, this view is particularly strong amongst farmers' groups, who argue that government must ensure that farmers' property rights are protected or compensated in respect to the impacts of compliance with environmental regulations designed for the benefit of the entire community (see, for example, National Farmers Federation, *Property Rights Position Paper* (Canberra, National Farmers Federation, Canberra, May 2002).

<sup>149</sup> Williams, P., 'Use of transferable development rights as a growth management tool' (2004) 21(2) *Environmental and Planning Law Journal* 105 at 108.

<sup>150</sup> Department of Agriculture, Fisheries and Forestry – Australia, *Investigating New Approaches: A Review of Natural Resource Management Pilots and Programs in Australia that Use Market-based Instruments*, (Canberra, AFFA, June 2002), <http://www.napswq.gov.au/publications/books/mbi/pubs/pilot-program-review.pdf>, viewed 26 May 2011.

<sup>151</sup> Figgis, P. 2004, *Conservation on Private Lands: The Australian Experience*, (Gland: Switzerland and Cambridge, UK: IUCN, 2004).



purchase of development rights, and the facilitation of non-profit, public interest land trusts, have come to the fore in the US.<sup>152</sup>

Within the modern system of formalised land tenure the bundle of rights that constitute land ownership are often consolidated in the hands of a single 'owner'. As a consequence many of the subtleties that historically allowed other right-holders to access, use, or influence the disposition of land are lost. It has been argued that this process of simplifying tenure arrangements to individual ownership, and then influencing behaviour by imposing regulations, is not necessarily optimal or even necessary.<sup>153</sup> More refined and flexible approaches include a focus on partial interests in land. By allowing voluntary acquisition and conveyance of specific rights for specific uses, partial interests offer this more refined alternative to a strictly regulatory approach or trading full ownership rights.<sup>154</sup> Development rights have been viewed as one of a number of rights embodied in the ownership interest in property. These development rights have been classified as a real property interest, which entitles the owner of a fee simple interest to deal with the land as the owner wishes, subject only to government regulation, principally through zoning.<sup>155</sup> However, the right to transfer development rights is not ordinarily part of the bundle of rights that comes with land ownership: because in Australia at least there is no right to develop land except within the terms of planning instruments. Government may therefore need to enact specific legislation to legalise the sending of a building right from one parcel to another.<sup>156</sup> Once legislatively sanctioned, an owner may separate and transfer one of the rights incidental to ownership whilst retaining the other rights.<sup>157</sup>

In the US the acquisition and conveyance of partial interests to land has proven to be popular, flexible and effective tools for land use and conservation policy. Schemes such as the purchase or transfer of these interests or rights have allowed public

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<sup>152</sup> Jacobs, HM., 'Fighting Over Land: America's Legacy ... America's Future?' (1999) 65(2) *Journal of the American Planning Association* 141 at 147.

<sup>153</sup> Wiebe, KD., and Meinzen-Dick, R., 'Property rights as policy tools for sustainable development' (1998) 15(3) *Land Use Policy* 203.

<sup>154</sup> *Ibid*, p 204

<sup>155</sup> Arnold, C., 'Transferable Development Rights – A Planning Tool for the Preservation of Heritage Buildings' (1992) 9(6) *Environmental and Planning Law Journal* 459 at 470.

<sup>156</sup> Daniels, TL. and Bowers, D., *Holding Our Ground: Protecting America's Farms and Farmland*, (Washington, D.C., Island Press, 1997), p 172.

<sup>157</sup> Arnold, above n 150, p 470.



agencies and private non-profit conservation groups to influence the use of public and private land without incurring the political costs of land regulation or the full financial costs of outright land acquisition.<sup>158</sup> It is a voluntary approach to influencing land use, by offering landowners and farmers financial incentives for environmental conservation, restoration, and preservation. While these benefits suggest the potential for wider application of partial interests as policy tools for a broad range of objectives associated with sustainable development, such a scheme also requires considerable institutional infrastructure and involves potentially significant transaction costs, including monitoring and enforcement obligations over the longer term.<sup>159</sup>

#### **4.4.3 Tradeable development rights**

Two types of schemes involving the trading of development rights by landowners are available – the purchase of development rights by government (PDR), and the purchase and transfer of development rights by developers (TDR). TDR may be contrasted with PDR in that it involves the movement of development potential from one parcel to another, whereas under PDR the right to develop is retired by being acquired through public funds. Typically in a TDR scheme the development rights are not acquired by a public agency, but purchased by private funds and thence transferred to another site. It is this aspect of private as opposed to public funding which defines one of the advantages of a transfer of development rights scheme over purchase of development rights. Where public funds are limited, TDR offers a land management and preservation technique which is not draining on the public purse.<sup>160</sup>

In the US, Lancaster County, Pennsylvania, pioneered the use of PDR to farmland to reinforce sections of designated urban growth boundaries. Because PDR is a voluntary program between landowners and the county, there is no violation of the takings issue of the Fifth Amendment. The county buys development rights in perpetuity and restricts, by means of an easement, the use of the land to farming and open space”.<sup>161</sup> Applied to biodiversity conservation for example, some researchers

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<sup>158</sup> Wiebe and Meinzen-Dick, above n 153, p 205.

<sup>159</sup> Ibid, p 213

<sup>160</sup> Hanna, KS., ‘Regulation and Land-use Conservation: A Case Study of the British Columbia Agricultural Land Reserve’, (1997) 52(3) *Journal of Soil and Water Conservation* 166.

<sup>161</sup> Daniels, above n 88, pp 203-204.



have expressed a preference for PDR, over other schemes including TDR, on the basis that these may impose new administrative burdens.<sup>162</sup>

Originally, the TDR concept derived from the English *Town and Country Planning Act 1947*, which allowed the separating of use rights from the underlying real estate.<sup>163</sup> Its more contemporary foundation however comes from its application in the United States in the 1960s and 1970s.<sup>164</sup> Since then, TDR schemes have been used for a variety of planning programs, including the conservation of large ecologically sensitive areas (e.g. the New Jersey Pinelands Plan), conservation of agricultural land or open space (e.g. farmland in Calvert County, Maryland, and the Santa Monica Mountains Coastal Zone, California), and the conservation of heritage items (e.g. New York City's use of TDR to preserve Grand Central Station).<sup>165</sup>

In essence, TDR is one type of planning tool that seeks to compensate landowners whose development rights have been restricted by regulation. Compensation is achieved by allocating to those owners an amount of development that may be transferred from the restricted site to another site.<sup>166</sup> Fundamentally, under this government-created program development rights are severed from a parcel designated for protection ('sending area'), and the severed rights are transferred to a parcel in an area where additional development is permitted ('receiving area').<sup>167</sup> The scheme thus allows more development on the receiving parcel while reducing or preventing development on the donor parcel. Under such a program, the development rights of the sending parcel may be either sold by that owner to the owner of the recipient parcel, or transferred directly from the donor to the receiving site if they are under common ownership. The number of development rights that can be transferred

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<sup>162</sup> See, for example, Boyd, J. and Simpson RD., 'Economics and Biodiversity Conservation Options: An Argument for Continued Experimentation and Measured Expectations', (1999) 240 *The Science of the Total Environment* 91.

<sup>163</sup> Ryan S., 'Conservation through Development: The Potential for Transferable Development Rights in Queensland' paper presented at 2004 *QELA Conference – Carrot, Sticks and Toolkits*, Cairns, 12-14 May 2004.

<sup>164</sup> Pizor P., 'Making TDR Work: A Study of Program Implementation', (1986) 52(2) *Journal of the American Planning Association* 203.

<sup>165</sup> Williams, above n 140.

<sup>166</sup> Bindon J., 'Transferable development rights: A review' (1992) 30(3) *Australian Planner* 136.

<sup>167</sup> Johnston, RA. and Madison, ME., 'From Landmarks to Landscapes: A Review of Current Practices in the Transfer of Development Rights' (1997) 63(3) *Journal of the American Planning Association* 365.



depends on how many development-rights ‘credits’ a planning authority allocates and how much it allows in areas designated for growth.<sup>168</sup>

Like all markets, markets in TDR must possess a number of attributes to efficiently allocate resources – in this case the conservation and development of land. The first attribute is a relative scarcity in TDRs, which occurs when supply of development potential is less than demand. Supply is limited through development restrictions and additional development is only allowed through the purchase of TDRs. Second, rights need to be well defined, tradeable and enforceable; third, large numbers of buyers and sellers are necessary; and finally there needs to be low transaction cost, aided by perfect information.<sup>169</sup>

TDR has a number of potential benefits (some of which are common to other voluntary tools such as PDR and donated conservation covenants or easements) which, when used in concert with other growth management tools, may help to achieve a number of natural resource protection objectives. For example, TDR protects land (such as land of high agricultural, conservation or landscape value) permanently, while keeping it in private ownership; TDR programs are market-driven, with the private sector paying to protect land; participation in TDR programs is voluntary; TDR promotes orderly growth by concentrating development in designated receiving areas; and TDR programs can accomplish multiple goals such as land protection and the development of compact urban areas.<sup>170</sup>

A TDR scheme offers a means of removing inappropriate development rights without unilaterally extinguishing them. This tool provides a means of reducing development potential in areas identified for protection without the costs of compensation to the local or state authority. Herein lies the driving rationale of a TDR scheme – owners of conserved land are compensated by developers who are able to profit from higher densities while securing significant areas for the benefit of the community at minimal

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<sup>168</sup> Daniels, above n 88, p 224.

<sup>169</sup> Ryan, above n 163, p 6.

<sup>170</sup> American Farmland Trust, Farmland Information Centre, *Transfer of Development Rights*, (Washington, D.C., American Farmland Trust, April 2008), [http://www.farmlandinfo.org/documents/37001/TDR\\_04-2008.pdf](http://www.farmlandinfo.org/documents/37001/TDR_04-2008.pdf), viewed 26 May 2011.



cost to government.<sup>171</sup> Protection of property rights should be, however, seen only as a partial justification for implementing a TDR program.

Indeed, in Australia there is no such inherent right to develop land; rather a property owner may have the right to seek development consent, after the granting of which, development for the specific purpose approved can legally commence before the consent lapses after a prescribed period. Nevertheless, in practice the Australian experience is that a landowner may have certain development expectations based on the applicable statutory planning controls. Implicit in the controls is a perceived probability of gaining approval for a certain type and quantity of development.<sup>172</sup> As a consequence, the fundamental principles behind the US model have been recognised and adopted by several local councils in Australia that have established TDR systems. These include heritage conservation in Sydney, Adelaide, Melbourne and Brisbane,<sup>173</sup> protection of the Mount Lofty Ranges near Adelaide, provision of open space and conservation reserves in Gosford (NSW), urban growth management in Wellington (NSW) and protection of the Illawarra Escarpment near Wollongong.<sup>174</sup>

With respect to natural heritage conservation nonetheless, it still appears that Australia is yet to apply a full TDR program. Rather, a number of councils have implemented ‘bonus’ development density programs, which “allow owners to conserve or donate part of their property in return for developing the remainder of their site at a higher density. Under these schemes no tradeable instruments are created, there are no trades between sites and no market created in development rights therefore they are not true TDR programs”.<sup>175</sup>

TDR has several attractions to commend it – which revolve around its ‘respect’ for property rights. TDR is a (hybrid) market based mechanism under which developers pay for preservation in return for additional development potential. Where a TDR scheme is in place, a developer buys development rights, with zoning provisions identifying the number of additional units allowed in designated receiving areas.

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<sup>171</sup> Pruetz R., ‘Putting growth in its place with transfer of development rights’ (1998) 31 *Planning Commissioners Journal* 15.

<sup>172</sup> Bindon, above n 166, p 136.

<sup>173</sup> Ryan, above n 163.

<sup>174</sup> Williams, above n 140.

<sup>175</sup> Ryan, above n 163, p 2.



TDR is therefore effective when the TDR option is more profitable than the non-TDR option for landowners and developers. The motivation for utilizing this scheme is the ability to sell and transfer development rights – thereby increasing residential densities in targeted sites – and yet retain land and appropriate uses in sending areas. Schemes such as the purchase or transfer of these interests or rights have allowed public agencies and private non-profit conservation groups to influence the use of public and private land without incurring the political costs of land regulation or the full financial costs of outright land acquisition.<sup>176</sup> It is a voluntary approach to influencing land use, by offering landowners and farmers financial incentives for environmental conservation, restoration, and preservation.

#### **4.4.4 Covenants**

Conservation covenants or easements may either be imposed as part of TDR and PDR schemes, or independently of such schemes, the latter generally as donated easements or covenants. Both variants are discussed here.

While development rights tools (i.e. TDR and PDR) and conservation covenants or easements are broadly similar in that they are voluntary, incentive-based growth management tools, there are some key differences between them. Primarily, there is a technical difference – a conservation easement restricts the right to develop on a piece of property, while a development right is the right to build on a property.<sup>177</sup> Nonetheless, TDR and PDR schemes will normally involve the imposition of a land use restriction, in the form of a conservation covenant or easement, on land in which the development potential has been purchased or transferred.

Indeed, reflecting this relationship, in some instances PDR is also referred to as a ‘purchase of conservation easement’ program.<sup>178</sup> Here, owners voluntarily prevent development by selling to an authorised government agency or non-profit

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<sup>176</sup> Wiebe and Meinzen-Dick, above n 153.

<sup>177</sup> Maynard, LJ., Kelsey, TW., Lembeck, SM. and Becker, JC., ‘Early Experience in Pennsylvania’s Agricultural Conservation Easement Program’ (1998) 53(2) *Journal of Soil and Water Conservation* 106.

<sup>178</sup> American Farmland Trust, Farmland Information Centre, *Purchase of Agricultural Conservation Easements: Source of Funding*, (Washington, D.C., American Farmland Trust, November 2006), viewed 26 May 2011, [http://www.farmlandinfo.org/documents/27750/PACE\\_Sources\\_of\\_Funding\\_06-11.pdf](http://www.farmlandinfo.org/documents/27750/PACE_Sources_of_Funding_06-11.pdf).



organisation the development right to their land in exchange for cash payment. The government or non-profit purchaser of the conservation easement or development right then holds the easement in perpetuity. Participation in this program does not affect landowners' ability to continue to use their land for purposes not precluded under the terms of the easement – for example for agriculture. Just as a PDR scheme 'purchases' and places an easement on land, a conservation easement may also be placed on the donor site under a TDR scheme. Here, development rights are sold and transferred (i.e. payment is received) and thence the covenant imposed.

Conversely, conservation easement schemes can operate outside the PDR/TDR framework, usually with landowners voluntarily donating (i.e. no compensation is involved) certain development rights or potential pertaining to land to an authorised government agency or non-profit organisation, which is enforced by means of easements over such parcels. Under a donated conservation easement or covenant scheme there is no sale or transfer of any development rights, and to be effective, the easements are intended as a perpetual restriction on development of the land.<sup>179</sup> Perpetuity of land use restrictions via a covenant or easement is the desired outcome of all three schemes – TDR, PDR and donated development rights (i.e. voluntary conservation covenants in Australia and donated easements in the US).

Voluntary statutory covenants, under which agencies have been given legislative powers to enter into covenants with landowners, are seen as the most applicable to the conservation of land in situations where the resources available to voluntary schemes are limited and so preclude compensation payments. This type of covenant is used in a number of countries; for example under the National Trust in the UK, and conservation easements in the US. However, it is in New Zealand that voluntary statutory covenants have been used as the main means of providing conservation on land under private ownership.<sup>180</sup> In Australia, although covenants and easements had historically not been used extensively for conservation purposes,<sup>181</sup> they have been used in some instances, such as voluntary Heritage Agreements between the South

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<sup>179</sup> Ohm, BW., 'The Purchase of Scenic Easements and Wisconsin's Great River Road: A Progress Report on Perpetuity', 66(2) *Journal of the American Planning Association* 177 at 177.

<sup>180</sup> Saunders, C., 'Conservation Covenants in New Zealand' (1996) 13(4) *Land Use Policy* 325.

<sup>181</sup> Industry Commission, *Inquiry into Ecologically Sustainable Land Management* (Belconnen, ACT, Commonwealth of Australia, Report No 60, 27 January 1998), p 497.



Australian Government and landowners to protect land covered by native vegetation,<sup>182</sup> and permanent conservation covenants involving the Victorian Trust for Nature.<sup>183</sup> In NSW conservation agreements are available under the *National Parks and Wildlife Act 1974* as a voluntary option for landholders with land of high conservation value.<sup>184</sup> The conservation agreement is a joint agreement between landholders and the Minister for Environment which provides permanent protection for special features of land: the area under the agreement is registered on the title of the land, ensuring that, if the land is sold, the agreement and management requirements remain in place.<sup>185</sup> “The range of significant conservation values that may be protected under a Conservation Agreement is broad and includes natural and cultural heritage values such as native vegetation, wilderness, wildlife habitat, Aboriginal sites and historic places.”<sup>186</sup> A further scheme, administered under the Revolving Fund of the NSW Nature Conservation Trust which involves both the acquisition of land and the imposition of conservation covenants, is discussed further in Chapter 6.<sup>187</sup>

#### 4.4.5 Offsets

Under an offset arrangement, industries or resource users are given the choice of either offsetting the damage they cause or paying an authority to do this on their behalf. The provision of an offset is a mandatory requirement or condition of the granting of approval to undertake development with potentially adverse environmental impacts. The arrangements operate partly through regulatory mechanisms such as permits or approvals, and partly through a market-based system, which allows one property owner who undertakes some form of environmental

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<sup>182</sup> Ibid, pp 498 and 505.

<sup>183</sup> The *Victorian Conservation Trust Act 1972*, s 3 empowers the Victoria Conservation Trust (now Trust for Nature) to negotiate ‘negative’ and ‘positive’ permanent conservation covenants for the conservation of the State’s natural resources: specifically the preservation of areas which are ecologically significant, or of natural interest or beauty, or of historical interest, as well as the preservation of wildlife and natural plants and the preservation and conservation of areas for scientific study. For further discussion, see Jones, D., ‘The Role of the Victorian Conservation Trust and the Value of Covenants’ (1989) 17(1) *Urban Policy and Research* 15.

<sup>184</sup> *National Parks and Wildlife Act 1974* (NSW), Part 4, Division 4 – Conservation Agreements.

<sup>185</sup> Office of Environment and Heritage, *Conservation Agreements*, (Sydney, OEH, 2011), <http://www.environment.nsw.gov.au/cpp/ConservationAgreements.htm>, viewed 27 May 2011.

<sup>186</sup> Department of Environment and Climate Change, *Conservation Agreements*, (Parramatta, DECC, September 2007), <http://www.environment.nsw.gov.au/resources/cpp/07256conservagreements.pdf>, viewed 27 May 2011.

<sup>187</sup> *Nature Conservation Trust Act 2001* (NSW)



restoration to sell offset credits to another owner or industry seeking approval to undertake development.

Offset schemes are gaining prominence in Australia. Examples of the operation of this type of instrument in NSW include the Green Development Offset Scheme,<sup>188</sup> and the use of offsets with respect to salinity and native vegetation.<sup>189</sup> The Green Development Offset Scheme was introduced by the NSW Environment Protection Authority to reduce water pollution in the lower Hawkesbury–Nepean River, water pollution in the drinking catchments of Sydney, and air pollution in the greater Sydney metropolitan area. The South Creek Nutrient Offset Pilot, a two-year voluntary project launched in August 2003, was the first pollution offset scheme to be trialled in NSW. The South Creek catchment covers an area of 620 square kilometres and represents 30% of the Sydney region. A significant amount of Sydney's new urban development will be occurring within this catchment over the next 20 years. The pilot scheme allows developers and land owners that cause pollution and so need an environment protection licence, to offset nutrient loads by reducing pollution at locations outside their sites (but within the catchment).<sup>190</sup>

Two NSW Government agencies – Sydney Water and Landcom – have contributed funds to implement nutrient reduction measures for diffuse sources (for example irrigation runoff and fertiliser use on farms). The credits generated from nutrient reduction measures can be used to comply with load-based licensing requirements or used in a permanent nutrient offset scheme. Load-based licensing was a tool introduced in 1 July 1999 as a way of controlling, reducing and preventing air and water pollution by setting limits on the pollutant loads emitted by holders of environment protection licences.<sup>191</sup>

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<sup>188</sup> NSW Government, *Green Offsets for Sustainable Development* (Sydney, Environment Protection Authority, April 2002).

<sup>189</sup> NSW Department of Land and Water Conservation, *Offsets, Salinity and Native Vegetation: Discussion Paper* (Sydney, DLWC, July 2001).

<sup>190</sup> Office of Environment and Heritage, *EPA pollution offset pilots – an update* (Sydney, Office of Environment and Heritage, 2011), <http://www.environment.nsw.gov.au/greenoffsets/epapilots.htm>, viewed 27 May 2011.

<sup>191</sup> Environment Protection Authority, *Load-based Licensing: A fairer system that rewards cleaner industry* (Sydney, EPA, April 2001), <http://www.environment.nsw.gov.au/resources/licensing/lbl/lblbooklet.pdf>, viewed 27 May 2011.



The potential to rely on offsets for dealing with salinity and native vegetation management has existed in NSW for several years.<sup>192</sup> An early example included *regional vegetation management plans* (RVMPs) which were prepared under the *NSW Native Vegetation Conservation Act 1997* (NVC Act), which could use offsets to encourage revegetation and reduce the impacts of salinity. One such example was the *Riverina Highlands Regional Vegetation Management Plan*. This RVMP, which took effect in May 2003, identified several biodiversity principles, such as the importance of clearing native vegetation in accordance with offset principles described in the RVMP. The NVC Act was repealed and replaced by the *Native Vegetation Act 2003* in December 2005.<sup>193</sup> The *Native Vegetation Act* does not maintain the regional vegetation plan mechanism: instead a property vegetation plan now provides the strategic framework for native vegetation management in NSW.<sup>194</sup> It is initiated voluntarily, may apply to one or more landholdings and must receive the approval of the Minister.<sup>195</sup> In terms of offsets, a property vegetation plan that proposes broadscale clearing of native vegetation cannot be approved unless it “will improve or maintain environmental outcomes”.<sup>196</sup> Property vegetation plans may also utilise other natural resource management tools – for example a plan may provide for financial incentives to be available to landowners.<sup>197</sup>

In relation to native vegetation, offsets schemes aim to ensure that the negative impacts of clearing are offset by separate actions that have positive impacts. Offset actions could include improving the management of existing native vegetation, restoring or regenerating an area of degraded vegetation, or revegetating a previously cleared area. Offset actions could take place on the same property as the clearing or, alternatively, be tradeable, whereby the impacts of clearing on one property are offset by action on another property. The applicant seeking to clear would buy the required

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<sup>192</sup> NSW Department of Land and Water Conservation, above n 189.

<sup>193</sup> *Native Vegetation Act 2003* (NSW); date of commencement, 1.1.2005, cl.2 *Native Vegetation Regulation 2005*, GG No 140 of 18.11.2005, p 9419.

<sup>194</sup> Farrier, above n 99, p 419.

<sup>195</sup> *Native Vegetation Act 2003* (NSW) ss 26(1), 27.

<sup>196</sup> *Native Vegetation Act 2003* (NSW) s 29.

<sup>197</sup> *Native Vegetation Act 2003* (NSW) s 28(d), which provides that a property vegetation pl may include “proposals to enable landholders to obtain financial incentives for the management of natural resources, being proposals relating to the carrying out or funding of native vegetation management activities by catchment management authorities or other bodies.”



offset credits from the owner or land manager who had undertaken the beneficial action.

Offsets are increasingly promoted as a tool for facilitating biodiversity outcomes from development proposals. Offsets are meant to “enable impacts on biodiversity to be counter-balanced by action taken elsewhere.”<sup>198</sup> The *NSW Biodiversity Banking and Offset Scheme* was established in 2008 following amendments to the *Threatened Species Conservation Act 1995* (‘TSC Act’).<sup>199</sup> Introduced through a new Part 7A (‘Biodiversity Banking’) to the TSC Act, and known as ‘biobanking’, this biodiversity offsets and banking scheme is site or project specific and is linked to the development approval process under the *Environmental Planning and Assessment Act 1979*. Biobanking is an example of an offsets scheme that, as applied in NSW, has specific application to natural resource-sensitive urban growth management. It aims to achieve more predictable development and conservation outcomes by guiding development to appropriate places, and to promote private land conservation through income generating opportunities for landowners who provide biobank sites. Landowners create credits by establishing biobank sites and earn income from managing land for conservation.

The NSW BioBanking and Offsets Scheme seeks to address the loss of biodiversity by enabling landowners to establish biobank sites to secure conservation outcomes and offset impacts on biodiversity caused by development. Conceptually, this is achieved through the use of an ‘improve or maintain’ test for biodiversity values, which means avoiding significant biodiversity conservation areas and offsetting impacts in other areas.<sup>200</sup> The offsets are measured in terms of credits, using the published BioBanking Assessment Methodology,<sup>201</sup> and developers participating in the scheme are required to meet this improve or maintain test based on the impact of

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<sup>198</sup> Department of Environment and Climate Change, *Working Draft Guidelines for Biodiversity Certification of Environmental Planning Instruments*, (Parramatta, DECC, 2007), p 5.

<sup>199</sup> *Threatened Species Conservation Amendment (Biodiversity Banking) Act 2006* (NSW)

<sup>200</sup> NSW Department of Environment and Climate Change, *BioBanking. Biodiversity Banking and Offsets Scheme. Scheme Overview*. (Sydney, DECC, 2007), p 4, <http://www.environment.nsw.gov.au/resources/biobanking/biobankingoverview07528.pdf>, viewed 28 May 2011.

<sup>201</sup> NSW Department of Environment and Climate Change, *BioBanking. BioBanking Assessment Methodology and Credit Calculator Operational Manual*. (Sydney, DECC, 2009), <http://www.environment.nsw.gov.au/resources/biobanking/09181bioopsman.pdf>, viewed 28 May 2011.



their proposed project. Under the scheme, biobank sites may be established by means of biobanking agreements entered into between the Minister and the owner(s) of the land concerned.

The BioBanking Scheme has four key components:

1. Establishing biobank sites on land through biobanking agreements between the Minister for Climate Change and the Environment and participating landowners. A biobanking agreement is similar to a covenant and is attached to the land title. It runs with the land, and generally will have effect in perpetuity so as to offset the impacts of development on biodiversity values.
2. Creating biodiversity credits for management actions that are carried out, or proposed to be carried out, to improve or maintain biodiversity values on biobank sites. The biobanking assessment methodology is the tool used to determine the number of biodiversity credits that may be created for these management actions.
3. The trading of credits, once they are created and registered.
4. Enabling the credits to be used to offset the impact of development on biodiversity values. The assessment methodology is the tool that is used to determine the number and class of credits that must be retired to offset the impact of a development and ensure that the development improves or maintains biodiversity values.<sup>202</sup>

Biodiversity offsets should only be utilized where development is appropriate, that is, they are no excuse for development projects that should not take place in the first place. Moreover, where a decision has been taken that a development project may proceed, biodiversity offsets should keep their proper place in the environmental ‘mitigation hierarchy’. “In other words, developers should seek first to avoid, minimise and mitigate the harm their projects cause (where ‘minimise’ means to design a project in such a way as to reduce harm, and ‘mitigate’ means to alleviate any residual harm to the extent possible).”<sup>203</sup> Only when these avenues have been exhausted, should offsetting the residual, unavoidable impacts be considered.<sup>204</sup>

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<sup>202</sup> NSW Department of Environment and Climate Change, *The BioBanking framework*, (Sydney, DECC, 2009), <http://www.environment.nsw.gov.au/biobanking/biobankframework.htm>, viewed 11 August 2009.

<sup>203</sup> International Union for Conservation of Nature (IUCN) (World Conservation Union), *Biodiversity Offsets: Views, Experience and the Business Case* (November 2004), p 6, [http://www.mitigationactionplan.gov/Executive\\_Summary\\_Biodiversity\\_Offsets\\_Report.pdf](http://www.mitigationactionplan.gov/Executive_Summary_Biodiversity_Offsets_Report.pdf), viewed 20 February 2010.

<sup>204</sup> Robinson, D., ‘Strategic planning for biodiversity in New South Wales’, (2009) 26 *Environmental and Planning Law Journal* 213 at 225.



Further, it is desirable that the appropriate goal for offsets is to go beyond ‘no net loss’ and seek to achieve ‘net benefit’ or ‘net gain’; that is, a measurable improvement in biodiversity compared to the *status quo ante*.<sup>205</sup> Problems in this context revolve around the ‘improve or maintain test’ applied to biobanking in NSW. In terms of “improving or maintaining” biodiversity values, there is no clear interpretation of what values need to be considered, nor the meaning of “improve or maintain” when applied to larger areas (that is, larger than a specific development site), landscape scale processes and longer time scales used in strategic planning. Here, “lessons can be learnt from the Victorian planning system regarding the application of offsets in EPIs. The Victorian planning system has incorporated offsets via the *Native Vegetation Management – A Framework for Action* in all planning schemes since July 2003.”<sup>206</sup> The primary goal of the Victorian Native Vegetation Framework is net gain, “i.e. a reversal across the entire landscape of the long-term decline in the extent and quality of native vegetation leading to Net Gain”<sup>207</sup>.

Further discussion and critique of the NSW Biobanking and Offsets Scheme is provided in Chapters 6, 7 and 8.

#### **4.4.6 ‘Smart regulation’ tradeable rights and offsets compared**

Conceptually, there are some essential differences between tradeable rights (both PDR and TDR) and offsets. Tradeable rights are essentially voluntary instruments (that may be supported by legislation or policy), whereas offsets are generally mandatory in nature and operate through a regulatory mechanism such as the granting of permits or approvals. Under an offsets scheme, development on land with some form of adverse environmental impact may be approved, so long as that impact can be offset by mitigating actions. Under a tradeable rights scheme however, development deemed to be undesirable or adverse in impact on land is prevented, either by that

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<sup>205</sup> International Union for Conservation of Nature (IUCN), above n 203.

<sup>206</sup> Connolly, I. and Fallding, M. ‘Biocertification of local environmental plans – promise and reality’, (2009) 26 EPLJ 128 at 144.

<sup>207</sup> Department of Natural Resources and Environment, *Victoria’s Native Vegetation Management – A Framework for Action*, (Melbourne, 2002), p 14.



development potential being acquired and ‘retired’ (under PDR) or acquired and transferred to suitable donor sites (under TDR).

A further distinction between TDR and offsets is a conceptual one based on the complementary questions of ‘Who is compensated?’ and ‘What rights are protected?’ An offset is based on the notion of regulators requiring compensatory action from landowners and resource users for the negative impacts of development, meaning in effect that the proponent/owner has to pay for the protection of public rights or goods. Tradeable rights, however, fundamentally involve the protection of private rights of property by providing for payment to a landowner for any loss of development potential. The difference is thus one of who is compensated or benefitted – the public (or environment) in the case of offsets, and private property owners in the case of tradeable rights – and also the protection of public or private rights or interests.<sup>208</sup> Despite these differences, the net effect of these schemes should be the same – the maintenance of significant natural and cultural resource lands and buildings.

## 4.5 Conclusion

Traditionally land use planning has been guided by strategic, that is ‘forward’, planning. Natural resource management and environmental protection should be no different. Indeed, the same strategic planning activity or task should integrate land use, environmental and natural resource management in terms of both terrestrial and hydrological systems. All these aspects should coalesce at the bioregional – which in practice is often the catchment – level. Outlining the broad policy and strategic context of regions (defined in terms of bioregions and assemblages of ecosystems), then provides the basis for more the delivery of specific government policies, actions and investments in natural resource management, land use planning and environmental protection. Here a mix of policy instruments may be used – command and control regulation, market and financial instruments etc – but the key requirement should be that these actions must be informed and guided by a strong strategic and policy framework.

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<sup>208</sup> This view is not inconsistent with the fact that private property owners and resource users may still benefit from an offset arrangement, particularly in circumstances of severe resource deterioration or planning restriction, where the only options are no development (i.e. prohibition) or development subject to the provision of suitable offsets.



This chapter has examined a number of options under the three broad approaches to natural resource conservation and environmental protection in an urban growth management context. While some reference has been made to relevant overseas examples, focus has been directed to the Australian and NSW contexts. Chapter 5 specifically examines the course of strategic planning and urban growth management in Sydney, with Chapter 6 then reviewing attempts in recent years to reform and improve, from both statutory and administrative perspectives, the land use planning, natural resource and environmental management systems applicable to Sydney.



# 5

## THE COURSE OF STRATEGIC PLANNING AND GROWTH MANAGEMENT IN THE SYDNEY REGION

### 5.1 Introduction

The over-arching theme of this chapter is the gradual evolution of a concern by government with natural resource conservation, and the apparent failure of the translation of this concern into the various post-war planning strategies for Sydney. It is contended that, despite significant legislative reform in the area, there has been a failure of strategic spatial planning at a metropolitan or regional level, to effectively plan for the protection and enhancement of environmental quality and natural resources such as biodiversity, water and agricultural land. Confirmation of this failure is witnessed through several intractable problems – perhaps none more palpable than the awkward efforts to establish and maintain a green belt for Sydney. Such a green belt had been a central component of Sydney's first post-war metropolitan strategy in 1948. Since its demise in 1961, the adoption of a green belt within the Sydney basin has been accorded a conspicuously low priority. A green belt was missing in the subsequent 1968 metropolitan plan, and thence recognised for anthropocentric (recreational) value only when some 'special use' corridors were identified in the 1988 strategy. Some recognition – but not a real priority – was evident in 1995 and 1998 strategies; whilst the attempt to incorporate a green belt (through 'green zones in and around the Sydney Growth Centres as part of the 2005 strategy) was savaged as an unjust imposition on property rights and relegated to insignificance in the latest strategy.



Emergence of the promotion of Sydney as a ‘global city’ since the mid-1990s,<sup>1</sup> with concomitant emphasis on economic factors such as international competitiveness and the attraction of global capital – at the expense of environmental quality and natural resource protection – has arguably culminated in the purposeful choice of a ‘global Sydney’ over a ‘liveable and sustainable Sydney’ in the latest strategic plan for Sydney.<sup>2</sup> It is a contention of this thesis that the *raison d’être* for strategic spatial planning for Sydney has primarily been urban and economic in focus, concentrating on the facilitation and management of the urban growth and economic development of Sydney and its associated urban areas of the Lower Hunter, Central Coast and Illawarra regions. The ongoing urbanisation of the Sydney basin and these surrounding regions – often at the expense of the environmental quality, natural resources and conservation of biodiversity particularly in rural-urban fringe and per-urban areas – is the inevitable outcome of such an approach. After examining each of the metropolitan planning strategies that were prepared for Sydney, this chapter provides a contrast with reforms occurring in the area of environmental planning and natural resources law, to highlight the disjuncture of growing environmental and natural resources concern with planning for the growth of Sydney.

## 5.2 Early ‘town and country’ planning in Sydney

Arguably the earliest ‘town plan’ for Sydney was the report by the 1908-1909 Royal Commission for Improvement of the City of Sydney and its Suburbs.<sup>3</sup> While the Royal Commission was dominated by ‘issues of access, particularly the rail, tram and road networks leading to the CBD’,<sup>4</sup> street beautification and social concerns such as housing quality and slum clearance were also significant issues. In the absence of a

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<sup>1</sup> See: Searle, G., *Sydney as a Global City*, (Sydney, Department of Urban Affairs and Planning, and the Department of State and Regional Development, 1996); McGuirk, P. & O’Neill, P., ‘Planning a Prosperous Sydney: the challenges of planning urban development in the new urban context’, (2002) *Australian Geographer*, 33(3), 301-316.

<sup>2</sup> See: Department of Planning, *City of Cities – A Plan for Sydney’s Future*, (Sydney, NSW Department of Planning, 2005) p 15, <http://www.metrostrategy.nsw.gov.au/dev/uploads/paper/governance/index.html>, viewed 12 June 2006.

<sup>3</sup> Report of the Royal Commission for the Improvement of the City of Sydney and its Suburbs, NSW *Parliamentary Printer*, 1909.

<sup>4</sup> Meyer, Bob, ‘Metropolitan strategies for Sydney 1909-2009’ in Freestone R (ed) *Spirited Cities* (The Federation Press, Sydney, 1993) p 210.



central planning authority in NSW, preparation of a plan to reserve land in Sydney for future arterial road corridors was commenced in the late 1930s by the Department of Main Roads (DMR).<sup>5</sup> Preliminary results from an integrated road and land use research program were published two years later.

No comprehensive town and country planning legislation existed in NSW until the enactment of the *Local Government (Town and Country Planning) Amendment Act 1945*, which inserted into the *Local Government Act 1919* a new Part XIIA titled 'Town and Country Planning Schemes'. In this regard, NSW lagged behind a number of other Australian States, Great Britain, and certain States in the United States.<sup>6</sup> However, the absence of comprehensive legislation did not infer a lack of concern with planning, as there had been a history of interest in the subject throughout the first half of the twentieth century in NSW.<sup>7</sup> Beside the 1908-1909 Royal Commission, a Town Planning Advisory Board was appointed in 1918, though it ceased to function in 1929. In 1919 the *Local Government Act* was passed, containing Part XII carrying the title 'Town Planning'. This Part conferred limited planning powers upon municipalities, for example in relation to approval of new roads and subdivision,<sup>8</sup> and the power to obtain the proclamation from the Governor of residential districts.<sup>9</sup> Amendments in 1925 to ordinances under the 1919 Act introduced a restricted form of 'zoning' through controlling the permissible type of building materials, "in that councils were given the authority to define portions of their areas within which the erection of buildings could be prohibited unless the external walls were of brick, stone, concrete, or like materials."<sup>10</sup> Following further amendments to the 1919 Act in 1927, local councils were granted the power in respect of applications for the

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<sup>5</sup> NSW Department of Main Roads, *Main Road Development Plan for Sydney Metropolis and County of Cumberland*, Part 1 (Sydney, DMR, 1945).

<sup>6</sup> Starke, JG., *The Law of Town and Country Planning in New South Wales*, (Sydney, Butterworths, 1966), 36. In relation to the Australian States, town planning and development Acts had been passed in 1920 and 1929 respectively, while Victoria and Tasmania had enacted town and country planning statutes in 1944.

<sup>7</sup> Winston, D., *Sydney's Great Experiment: The Progress of the Cumberland County Plan* (Sydney, Angus and Robertson, 1957), pp 25-28, 31-32.

<sup>8</sup> *Local Government Act 1919* (NSW), ss 323-333.

<sup>9</sup> *Local Government Act 1919* (NSW), s 309.

<sup>10</sup> Starke, above n 6, p 37



erection of new buildings to consider the height, materials, stability and design of the building.<sup>11</sup>

Growing interest in town planning in NSW was also reflected in several Town Planning Bills being introduced throughout the first half of the twentieth century prior to the gazettal of Part XIIA of the *Local Government Act* in 1945. Town Planning Bills were introduced in 1919 and 1922, but were not progressed. One of the first tasks of the Town and Country Planning Institute of New South Wales following its formation in 1934 was the preparation and presentation to the State Government of a draft Town and Country Planning Bill. In 1934 the NSW Department of Local Government introduced a draft Town and Regional Planning Bill, but this was not introduced in Parliament. In terms of planning for the Sydney region, Bills for the planning of the Greater Sydney Area had been drafted in 1915, 1918, 1927 and 1931 but, like the other State-wide town and country planning bills, failed to emerge as statutes, generally due to reasons such as more pressing government business or Parliamentary delay. The Greater Sydney Bill of 1915 for example, was introduced in the Legislative Assembly but did not progress beyond the first reading stage. It was the first serious attempt to establish an authority in NSW with town planning powers by providing for the constitution of a Sydney Metropolitan Council, which was envisaged to exercise town planning powers over the whole of the metropolitan area. Similarly, the Greater Sydney Bill of 1931, which was not enacted,<sup>12</sup> sought the establishment of a Greater Sydney Council to prepare a town and regional planning scheme for the Greater Sydney area embracing the whole of the County of Cumberland.

### **5.3 The County of Cumberland Plan**

That the 1945 Act was passed was due to several factors: the momentum gained from the several previous efforts; election policy in 1941 of then Opposition Leader and subsequently Premier of NSW, W J McKell, to introduce planning legislation; the

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<sup>11</sup> Via amendment to s 313 of the *Local Government Act 1919* (NSW).

<sup>12</sup> The Greater Sydney Bill 1931 “was actually passed by the Legislative Assembly, but examination of amendments made by the Legislative Council delayed its progress with the result that ultimately the Bill failed to become law”; see Starke, above n 6, p 38.



accelerated pace of development during the Second World War; recognition of the need to prepare for post-war expansion of industry and building, particularly housing, in NSW; the need for regional planning and comprehensive planning legislation had been raised by the Commonwealth Government with the State Governments, while the Commonwealth was also concerned about post-war housing provision in NSW; and the continued representations for a comprehensive planning Act made by professional planning bodies and work undertaken by the Department of Local Government.

Pertinently, the 1945 Act made provision for a controlling planning scheme for the County of Cumberland; the County consisted of local council areas in metropolitan Sydney and fringe local government areas such as Campbelltown, Camden, Liverpool, Penrith and Windsor. A Cumberland County District was provided by the Act, and was constituted by proclamation of 27 July 1945.<sup>13</sup> Under the 1945 Act, the Cumberland County Council was, no less than three years from the date of the establishment of the County District, to prepare and submit to the Minister a scheme in respect of all land within the District. The scheme was only required to provide for a prescribed list of enumerated matters that were of overall County significance, and not for particular municipalities or shires.<sup>14</sup> “Local planning schemes prepared by councils in the County District were intended, within the broad planning framework of the County scheme, to provide for the more detailed planning of particular areas, but in a manner ensuring coordination with the shires and the municipalities”.<sup>15</sup>

In 1945, the State Government established a formal metropolitan planning body, the Cumberland County Council. When the County Council commenced work that year on Sydney’s first spatial plan – the County of Cumberland Plan – it was able to utilise the detailed land use and population density data contained in the DMR study. Population forecasts, prepared in 1947, upon which the Cumberland Plan was based, were derived from the 1944 Report of the National Health and Medical Research Council which ‘contained two population projections, one indicating a maximum

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<sup>13</sup> The boundary of the Cumberland County District followed the Hawkesbury-Nepean river system, and joined the coast at Bulli Pass after leaving the headwaters of the Cataract River.

<sup>14</sup> Such prescription was made by Ordinance No 104, issued on 9 November 1945.

<sup>15</sup> Starke, above n 6, p 42



population of 8,200,000 in Australia in 1990 and thereafter a gradual decline, and the other a maximum of 8,500,000 in 1970'.<sup>16</sup> As overseas immigration was not included in these estimates the County of Cumberland planners prudently increased these figures by adding overseas migration, which was assumed to rise to a rate of 30,000 per year, double the pre-war level.<sup>17</sup> Despite this apparent prescience, subsequent events and hindsight were to prove that these forecasts were far too low. The Plan was based on Sydney's population only growing to (and peaking at) about 2.25 million by 1980, yet it had reached this level in 1960 due to the massive immigration program of the 1950s and natural increase caused by the post-war baby boom (factors which the Plan could not have predicted let alone controlled).

In any event, well before this ultimately fatal assumption of only modest population growth both in terms of natural increase and overseas immigration became evident, work on the County Plan continued. A draft of the County of Cumberland Plan was completed in 1948, adopted by the Cumberland County Council, and exhibited for public comment during the same year and again in 1949. Ultimately, the County Plan consisted of a report – the *County of Cumberland Planning Scheme Report* (1948), a delegated planning instrument gazetted in 1951 that implemented the Plan – and accompanying maps. In the interim however, further progress with enacting the Plan between 1949 and 1951 was delayed. A major reason for the interruption in the operation of the County Plan was the refusal of the Commonwealth Government to make any contribution toward the cost of implementing the Plan, requiring the NSW Minister for Local Government to modify the County planning scheme by eliminating the provision for the acquisition of built-up lands required for various planning purposes. Consequently, financial responsibility for the modified Plan had to be borne equally by the State and by local government. It was not until 1951 that the County Plan was able to come into force through an act of the NSW Parliament.<sup>18</sup> The County Plan was given legal effect, as a statutory instrument titled the *County of Cumberland Planning Scheme Ordinance* ('the CCPSO'), which was set out in a

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<sup>16</sup> Winston, above n 7, p 81.

<sup>17</sup> Cumberland County Council, *Report On The Planning Scheme For The County of Cumberland*, (Sydney, CCC, 1948) pp 49-50.

<sup>18</sup> *Local Government (Amendment) Act 1951* (NSW), assented to on 27 June 1951.



Schedule of the 1951 Act, and became law on assent to that Act. The broad purpose and institutional arrangements of the County of Cumberland scheme were that it

... made provision for the reservation of land for the purposes of open space, county roads and railways, and for the zoning, on a more general basis, of land use. The Cumberland County Council was designated as the responsible authority for the control of the scheme in respect of the reservation of land and the green belt and special uses zones, all development by the Crown, the payment of compensation, places of scientific or historic interest, and the control of ribbon development. In regard to all other purposes of the scheme, each local council was to be the responsible authority for controls within its own area.<sup>19</sup>

Defining characteristics of the County Plan included that it: (i) was implemented (and legally enforceable) through a statutory planning scheme (the County of Cumberland PSO); (ii) provided a fund for the acquisition of (vacant) land reserved for public purposes such as open space, future roads and other needs; and (iii) prescribed the outer limits of urban growth and sought a compact city form: this was to be achieved through the concentration of city growth within the existing urban area, and the establishment of an encircling 'green belt' based on British lines, to limit suburban expansion and link scenic and bushland reservations. A defining characteristic of the County Plan was that it represented the first attempt to *plan* for Sydney's growth by seeking to coordinate infrastructure provision and establish a statutory-based system of land use planning and regulation:

For the Sydney region, up to the end of the 1940s, the pattern of physical development was created through a market which was strongly led by the investment plans of individual infrastructure authorities: rail, road, water and sewerage. The County of Cumberland Plan was the first to attempt overall coordination of infrastructure provision and thus of land development. It also initiated the application of comprehensive local planning regulations which have since remained the basic tool for controlling land use change.<sup>20</sup>

The County Plan "was based on projections of modest population growth – an increase of about 550,000 in the 1948 population of some one and three quarter

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<sup>19</sup> Starke, above n 6, p 43

<sup>20</sup> NSW Department of Planning, *Cities for the 21st Century*, (Sydney, DoP, 1995) p 54.



million – over the following 25 to 30 years”.<sup>21</sup> Thus, it was assumed that a metropolitan population of 2.25 million by 1980 could be accommodated in an area easily serviced by existing infrastructure. A deconcentration of (generally ‘slum’) inner areas was proposed, with concentrated growth in outer suburban and satellite areas identified for future development. To define the area separating inner areas from the outer growth areas of satellite cities and towns, a green belt was proposed located in a radius approximately 20 kilometres from the city centre.

Given the moderate population growth forecasts, the growth management tool of an encompassing green belt around the periphery of the city to define and contain the limits of urban growth in Sydney, was a sensible approach. It drew strongly from Sir Patrick Abercrombie’s Greater London Plan of 1944, with its encircling green belt and satellite towns outside this area protected from urban sprawl – though in the case of the Cumberland Plan the necessary satellite towns beyond its green belt were never delineated and thus it did not contain any effective proposals for growth outside the green belt.

In addition to the green belt, another noticeable growth management feature also proposed by the Cumberland scheme was a series of urban districts within the city separated by natural features, each serviced by a district centre. These districts, separated by areas of open space and girdled by a greenbelt, were drawn strongly from the Garden City concept of Ebenezer Howard. However, in a major oversight, these areas identified in the Cumberland scheme bore no relationship to the ‘living areas’ described in the accompanying report: the living areas were never clearly identified or their centres specifically nominated. The Cumberland Plan was thus an enigma: it did not identify and zone new urban districts (i.e. satellite towns) and new town centres within the existing urban area, which was a significant omission for an otherwise ‘precise’ document. Despite this shortcoming, the Cumberland Plan was described in the late 1970s as “the most definitive expression of public policy on the form and

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<sup>21</sup> O’Toole, S., ‘Integrated policies on urban land use planning’, in *Metropolitan Planning in Australia*, Proceedings of a workshop held by the Hon Brian Howe MP, Deputy Prime Minister and Minister for Housing, Local Government & Community Services, (Canberra, National Capital Planning Authority, 1994) p 94.



content of an Australian area ever adopted”.<sup>22</sup> Since then, at least so far as Sydney is concerned, arguably nothing has occurred in metropolitan planning to counter this opinion.

From a growth management perspective, evident in the Cumberland Plan was a scenario of low population growth and a consequential logical preference for a compact city form. Conceptualisation of this proposed urban morphology for Sydney was particularised through the adoption of the British town and country planning heritage of the green belt and garden city. Permeating the Plan were the “themes of low population growth, and a spoiled city and countryside that needed to be reinstated by determined and aggressive action.”<sup>23</sup> Inevitably the urban-rural fringe was to have a pivotal role in trying to “regain an earlier harmony between city and country.”<sup>24</sup> Of concern to the authors of the Cumberland Plan was the “promiscuous urbanisation” of the rural areas surrounding the city.<sup>25</sup> This practice arose from the interaction of several processes, for example the desire of urbanites to escape the burdens of city living, the decline of rural communities due to migration to the cities in search of better opportunities and services, and the conversion of rural land to urban purposes invariably caused by a lack of security of tenure. An account of these processes was described in the flowing terms in the Plan:

The most serious threat to the County’s rural areas is the insecurity of tenure. This is partly due to a system which provides the title-holder with an indisputable right to use his land as he pleases ... This condition is made worse by unstable prices which exhibit severe fluctuations over short periods. Real estate booms and depressions occur with alarming frequency and invariably follow the course of feverish subdivision during the boom and a subsequent legacy of idle allotments.

Subdividers are able to offer tempting inducements to the owner of rural land and against the combined pressure of buyers his position is hopeless ... The land is sold and subdivided. When the boom breaks the victims are the home-seekers who cannot afford to build and also the speculators who have the prospect of either selling at a loss or holding on for many years. The

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<sup>22</sup> Harrison, P., ‘Planning and the Metropolis’, in R.S. Parker and P.N. Troy (eds.) *The Politics of Urban Growth*, (Canberra, ANU Press, 1972) p 68.

<sup>23</sup> Bunker, R., ‘In the shadow of the city: the fringe around the Australian metropolis in the 1950s’, (2002) 17 *Planning Perspectives* 61-82 at 64.

<sup>24</sup> Cumberland County Council, above n 17, p 124.

<sup>25</sup> Ibid, p 129.



inevitable result is that once-valuable rural land lies idle until the next book, except, perhaps for some sporadic development by isolated home builders...

... In some districts the result was fantastic ... most of the farming land was recklessly divided and authorities were burdened for many years with the task of providing the barest essentials of services for a meagre sprinkling of dwellings.

At times, rural land has been laid waste when their use for residential lots is most unsuitable, due to unfavourable topography or difficult access.<sup>26</sup>

The green belt around Sydney was designed to form a “permanent girdle of pure countryside surrounding the urban area of the County, in place of an insecure and indefinite margin of land ravaged by the groping tentacles of urban sprawl.”<sup>27</sup> It was to be ‘subject to special aesthetic treatment and protection of its rural character’,<sup>28</sup> and several new recreation and scenic reserves were to be located in it. The green belt was itself encompassed within a wider Rural Zone which was ‘to be preserved for its essential uses and as pure countryside’ mainly in primary production, and no alteration was proposed ‘in the large areas already devoted to water catchment, afforestation or defence’.<sup>29</sup> Retention of rural areas was to be achieved by the combination of zoning and the setting of a minimum lot size for subdivision, which was ultimately fixed at a lower limit of 5 acres.

From its very beginning, the County Plan met with considerable institutional and stakeholder opposition. Constraints that the Plan imposed on landowners were felt to be troublesome; local councils resented and frequently defied the County Council; and State authorities were reluctant to be bound by the Plan.<sup>30</sup> These difficulties were compounded by physical challenges – in particular by a population growth rate in Sydney double that estimated by the Plan.<sup>31</sup> As a consequence of the demand

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<sup>26</sup> Ibid, p 129.

<sup>27</sup> Ibid, p 147.

<sup>28</sup> Ibid, p 125.

<sup>29</sup> Ibid, p 129. Several areas were set aside for afforestation: such areas were proposed to be organised into rural districts ‘defined mainly by farming activity, integration by transport routes and community of interest’ (Cumberland County Council, 1948, p 130).

<sup>30</sup> Ashton, N., ‘Planning the Central State’, (1988) 26(3) *Australian Planner*, 24.

<sup>31</sup> Spearritt, P. and De Marco, C., *Planning Sydney’s future*, (Sydney, Allen and Unwin, 1988).



generated by the unforeseen population growth, tremendous strains were placed on the green belt by both private and public sector land and housing developers.<sup>32</sup>

Satellite cities needed to be established beyond the green belt to compliment the compact metropolitan core. Instead, in 1961 the Minister for Local Government announced, without consultation with the Cumberland County Council, the abolition of the green belt and ordered that large urban expansions be allowed. Significantly however, following expression of concern by the County Council over abolition of the green belt, a compromise was gained. Areas could only be released for urban growth following detailed planning, including identification of land for public uses; landowners became responsible for the cost of water and sewerage reticulation; and the arrangement, whereby local councils were beginning to require landowners to provide roads and stormwater drainage in new subdivisions, was extended. At this time the Minister foreshadowed the demise of the Cumberland County Council and the preparation of a new metropolitan plan, which became known ultimately as the *Sydney Region Outline Plan*.

As a growth management tool the County of Cumberland Plan was unique in an Australian context in terms of its encircling greenbelt and interwoven urban open space areas. However, based as it was on Abercrombie's Greater London Plan and Howard's Garden City concept, the primary function of Sydney's greenbelt was perceived to be more concerned with the preservation of the rural-urban fringe as a place for agriculture, open space and amenity for city dwellers.<sup>33</sup> In terms of the focus of this thesis on growth management for the purposes of natural resource management and environmental protection, while the green belt had incidental benefits in terms of affording some level of environmental protection and resource management, it was not imbued with a strong sense of nature conservation.<sup>34</sup> This perception is evident

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<sup>32</sup> Stilwell, F., *Reshaping Australia: Urban Problems and Policies*, (Sydney, Pluto Press, 1993); Spearritt, P. & De Marco, C., above n 31.

<sup>33</sup> Bunker, above n 23, p 61.

<sup>34</sup> A County of Cumberland report of 1957 (quoted in Golledge, R.G., 'Sydney's Metropolitan Fringe: a study in urban-rural relations' (1960) 7 *Australian Geographer*, 243) amplified the purposes of the rural-urban fringe:

- (a) contain the city to a planned population and to prevent its outward growth;
- (b) provide a belt of countryside between the city and rural towns of the country;
- (c) provide an escape from urban living with spiritual, mental and physical relaxation;



from contemporary planning reports on the Sydney urban-rural fringe, which were “preoccupied with its agriculture and farming”<sup>35</sup> and a review produced by the Cumberland County Council which argued for the protection of extractive resources on the fringe.<sup>36</sup> Generally, the Cumberland Plan received positive critical acclaim, especially as a plan “strongly imbued with a sense of equity or social justice.”<sup>37</sup> However, the timing of the Plan was problematic – it was arguably a good plan, but implemented at the wrong time:

The constrained urban area proposed by the County plan had a justifiable logic given the conservative population projections, but the British-inspired greenbelt concept was inappropriate for a growth situation, particularly as there was no provision for satellite growth or decentralisation. When the Commonwealth Government implemented its massive migration program in the late 1950s, the physical component of the plan was completely invalidated and required an immediate review.<sup>38</sup>

Further, the Cumberland Plan suffered from a lack of funding (from the Commonwealth Government), particularly for the acquisition of land for open space and infrastructure corridors, and for new urban releases, particularly in proposed satellite towns beyond the green belt.<sup>39</sup> Perhaps most importantly, the County Council suffered from a lack of political power and fragmentation of decision-making within the political and bureaucratic structures of the day. This meant that efforts made by the County Council to adapt the County Plan to changing circumstances – to accommodate the rapid growth that was occurring in Sydney – was doomed to failure, so that, by the mid-1960s, the County Scheme was “crumbling at the edges”.<sup>40</sup>

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- (d) provide for rural pursuits close to the city;
  - (e) provide for institutions which require a rural site;
  - (f) provide major reserves for Government use;
  - (g) provide for major Open Space reserves;
  - (h) provide for a unified area around the city which can be planned countryside, providing for husbandry of the land, desirable standards of living, working and playing, and maintenance of beauty, character and tradition.

<sup>35</sup> Bunker, R., above n 33, p 66.

<sup>36</sup> Arnot, R.H., *Extractive Industry in the County of Cumberland*, (Sydney, Cumberland County Council, 1962).

<sup>37</sup> Alexander, I., ‘Post-War Metropolitan Planning: Goals and Realities’, in P.N. Troy (ed) *Equity in the City*, (Sydney, Allen and Unwin, 1981), p 148.

<sup>38</sup> Meyer, above n 4, p 212-3.

<sup>39</sup> Ashton, above n 30, p 24-25.

<sup>40</sup> *Ibid*, p 25.



## 5.4 The Sydney Region Outline Plan

If the County of Cumberland Plan sought to control ‘promiscuous urbanisation’ by creating a compact city ringed by a green belt and rural zoning, its successor the *Sydney Region Outline Plan* (SROP) may be described as a plan whose function was to facilitate the ‘promiscuous suburbanisation’ of Sydney. Whether such an approach represents ‘growth management’ is arguable – indeed the ‘urban’ focus of both the 1948 and 1968 (and subsequent plans) for Sydney is significant as it raises the question of ‘What are these plans managing growth for?’ This in turn relates to a main theme of this thesis, namely the failure of the growth management of Sydney to adequately accommodate environmental protection and natural resource conservation values. Much of the sprawl evident in Sydney today has its origins in the program of extensive land releases for new urban areas promulgated by SROP and subsequently propagated by associated State Government action such as the Urban Development Program. In planning for making land available for the rapid suburbanisation of Sydney, little attention was given in SROP to environmental and natural resource management issues.<sup>41</sup>

Following the abolition of the Cumberland County Council in 1963, the newly created State Planning Authority (SPA) assumed responsibility for the implementation of the County Plan in 1964. The ‘improved’ constitution of the SPA (as a ‘pure’ State agency, rather than a hybrid State/local institution that had proven problematic in the case of the County Council) was deemed desirable in order to facilitate planning through better coordination of the operation of State public works/infrastructure departments and local government authorities.<sup>42</sup>

The SPA’s main function was the preparation and implementation of a new spatial plan for Sydney. In 1967 the SPA produced a background document that found Sydney’s growth pressures had far exceeded the forecasts on which the Cumberland Plan was based.<sup>43</sup> By 1967 the population was already 2.5 million (the Cumberland

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<sup>41</sup> Meyer, above n 4, p 215.

<sup>42</sup> Ashton, above n 30, p 24.

<sup>43</sup> State Planning Authority, *Sydney Region: Growth and Change: Prelude to a Plan*, (Sydney, SPA, 1967).



Plan was based on a population of Sydney of only 2.25 million by 1980) with then contemporary growth rates suggesting 5.5 million could be reached by the end of the century. Working from this conclusion, in 1968 the SPA released the *Sydney Region Outline Plan*, which indicated: (i) the broad areas of urban expansion within the Sydney region; and (ii) the staging of the development of the new urban release areas, for an additional population of 1.75 million by 2000. In addition, a further 0.5 million were to be housed at Gosford/Wyong and another 0.5 million ‘diverted’ to other parts of NSW – thus SROP sought to accommodate an extra 2.8 million people by 2000. Thus, unlike the Cumberland Plan, SROP was seen as a key part of the development strategy for NSW as a whole. Importantly, from a growth management perspective, the concept of decentralisation was built into thoughts on State development and the population growth of Sydney.

SROP was also dissimilar from the Cumberland Plan, as it was not a statutory scheme and was not formally adopted by government. However, the regulation of each stage of rural-to-urban conversion in areas delineated in the Outline Plan relied on local government statutory planning powers (i.e. the rezoning of land through a local council-prepared statutory planning instrument).<sup>44</sup> SROP was completely different in character and purpose from the County of Cumberland Planning Scheme and the complimentary planning scheme ordinances prepared by local councils in conjunction with the SPA. SROP was a *strategic* spatial plan – it was not a statutory based plan, and rather than dealing with local detail, it was a broad-based statement or structure plan setting out the objectives, principles and strategy for urban development in Sydney up to and beyond 2000. The translation of the broad proposals for any area into detailed plans was left primarily to local government through its own process of

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<sup>44</sup> Such statutory instruments were originally made under Part XIIA of the *Local Government Act 1919* (NSW). They were either in the form of planning scheme ordinances made under the *Local Government (Town and Country Planning) Amendment Act 1945* (NSW), which inserted Part XIIA into the 1919 Act, or interim development orders, which were introduced following a 1962 amendment to the 1945 Act – the *Local Government (Town and Country Planning) Amendment Act 1962* (NSW). With the repeal of much of the *Local Government Act 1919* (including Part XIIA) and its replacement in September 1980 by the *Environmental Planning and Assessment Act 1979*, local-prepared statutory planning instruments took the form of local environmental plans.



local strategic planning and, in general, subsequent formulation as statutory-based plans.<sup>45</sup>

The main change to the physical appearance or structure of the Sydney metropolis was from the 'compact city' of the Cumberland Plan and its greenbelt-satellite town concept, to growth corridors focused on the existing rail network and new cities predicated on expansion and self-contained centres. Notably, to help implement the aims and objectives of the Outline Plan the SPA, unlike its predecessor the Cumberland County Council, was accorded a land development function. This in itself was significant, because planning is seen today very much in terms of land use regulation, with little scope for utilisation of the more proactive tool of public sector development to achieve planning objectives. Thus for example, the SPA was able to acquire land parcels in 83 different ownerships in order to assemble a 62-hectare site for the Mount Druitt Town Centre, which was to service an urban district with an estimated population of 200,000 people. In a similar vein, the most ambitious move towards fulfilment of SROP was the active development by the SPA (and later the Macarthur Development Board) of a complex of three new cities for 500,000 people – Campbelltown/Camden/Appin. New urban areas identified by SROP were to be released in coordinated, overlapping stages; in all there were five staged urban releases, beginning with Stage 1 in 1970-80 and culminating in Stage 5 in 1990-2000.

From its very beginnings, the integrity of SROP was undermined by a number of deficiencies. The Plan was not integrated with transport planning, due to the unavailability of 1966 journey-to-work figures from the Australian Census of that year. The *Sydney Area Transportation Study* (SATS), based on this data, was not released until 1974, some 6 years after the publication of SROP. With the availability of SATS it became obvious that SROP was based on questionable trends. Population growth had slowed substantially and, as evident from land use and journey-to-work data, the movement of jobs was unlikely to follow the workforce to suburban locations as predicted in SROP. By 1974 the new Planning and Environment

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<sup>45</sup> Originally these statutory-based plans took the form of planning scheme ordinances and interim development orders made under Part XIIA of the *Local Government Act 1919* (NSW); from September 1980 they took the form of local environmental plans and development control plans made under Part 3 of the *Environmental Planning and Assessment Act 1979* (NSW).



Commission believed that SROP needed to be reviewed, which culminated in the publication in 1980 of the *Sydney Region Outline Plan Review*.<sup>46</sup>

Further concerns over the currency and relevance of SROP led to the establishment in December 1980 of the Urban Development Committee (UDC), and subsequently, the *Urban Development Program* (UDP). Essentially, the UDP coordinated the public sector contribution to urban expansion. In NSW, as in other Australian states and territories, the State Government determines the location and timing of urban expansion. The UDC was composed of representatives of the State authorities (including the Department of Environment and Planning) involved in the development process, the State Treasury and local government. The UDC was established at a time when the supply of land identified for urban development in the 1968 SROP was nearly exhausted and when development activity was at a peak.<sup>47</sup> Powerful State agencies on the UDC such as the Department of Housing and the Land Commission of NSW challenged the rate of land release under SROP. These agencies disagreed with the newly established Department of Environment and Planning over the timing and availability of new land for housing on the fringe of Sydney, and argued that a land shortage was looming. Specifically, by 1974 four land releases had been made in the SROP areas, with an ultimate potential of about 97 000 allotments. However, by 1978 an acute shortage of residential land re-emerged, and the release in 1979/80 of the fifth stage areas of SROP with a potential of 24,000 lots was too late to overcome the shortage. Though a sufficient quantity of land may well have been released, rezoned and serviced, much of it was not available on the open market as subdivided land or as land able to be subdivided quickly.<sup>48</sup>

Thus, concerns over the *phasing* of new release areas was identified as a problem of SROP that the UDP sought to resolve. The UDP aimed to co-ordinate the planning, servicing and development of new residential land in the major urban areas of Sydney, Newcastle and Wollongong. “The first urban development programme sought to

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<sup>46</sup> Planning and Environment Commission, *Sydney Region Outline Plan Review*, (Sydney, PEC, 1980).

<sup>47</sup> Department of Environment and Planning, *NSW Urban Development Program Sydney Region, 1983/84 – 1987/88*, (Sydney, DEP, 1983), p 1.

<sup>48</sup> Wilmoth, D., ‘Managing Urban Expansion: Sydney’s Urban Development Programme’ (1987) 15(4) *Urban Policy and Research*, 156 at 158.



produce 55 000 lots and to ensure that two years' equivalent of stocks were available at any time".<sup>49</sup> The program had a rolling five-year horizon, within which firm planning, servicing and development timetables were committed for release areas. When land in the major urban areas was released for urban development from rural areas it was added to the UDP. The program consisted of a specific program for completing the planning, servicing and lot production phases, on land in each of the designated release areas.<sup>50</sup> An annual review and development of the following five-year program was co-ordinated by the UDC each June.

Prior to the establishment of the UDC and UDP, the sequence of new development, although contained in the boundaries of SROP, had been determined mainly by the preferences of departments and authorities such as the Metropolitan Water Sewerage and Drainage Board. The financial and planning effects of these actions on other physical infrastructure and social service agencies were not adequately considered, "so that such agencies were frequently correcting backlogs".<sup>51</sup> A further problem that the UDP sought to overcome was 'leapfrogging' development – where demand for urban land resulted in the premature, disorderly opening up of new residential areas before existing housing estates were even partially developed. This 'leapfrogging' was also uneconomic as it forced service authorities to commit large amounts of capital for new facilities instead of using spare capacity in existing estates. The establishment of the UDC was intended to provide for the orderly development of land by considering the implications for all servicing authorities and co-ordinating their activities through the detailed UDP. A criticism of SROP was that it was often claimed to be Water Board led.<sup>52</sup> Yet despite this criticism, the Water Board was (and remains, through its present incarnation as Sydney Water) "a major player in deciding on future urban form and particularly timing of development".<sup>53</sup> Significantly, during this whole time of policy and administrative adjustment of Sydney's urban land release system, scant attention was paid to the implications of Sydney's broad growth management strategy

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<sup>49</sup> Ibid, p 158

<sup>50</sup> The planning phase includes gazettal of local environmental plans and preparation of development control plans. The servicing phase includes investigation, design and construction activities of amplification works. The lot production phase includes all subdivision and road construction activities, the provision of reticulation services and the registration of individual lots.

<sup>51</sup> Department of Environment and Planning, above n 47, p 1.

<sup>52</sup> Kibble, G., 'Metropolitan Strategy for Sydney' (1987) 3(4) *Planner*, 7 at 7.



on natural resource management and environmental protection, although environmental considerations may have come into the selection and timing for development of individual land releases.

Once areas were included in the UDP they were announced as ‘release areas’. Because lead times for major infrastructure could be well beyond five years, there was also a ten-year queue – areas that were termed ‘medium term options’ – that was reviewed annually. Thus, to enable servicing authorities a degree of certainty over works programming beyond five years, a ten-year indicative programme was formulated and reviewed each year. This represented an agreed queue of potential additions to the UDP. “From among all medium-term options the choice was narrowed down on the basis of such criteria as environmental opportunities and constraints, housing market segments likely to be served, other sub-regional market conditions, contiguity to existing release areas and, not least, the cost of infrastructure and services needed for urban development.”<sup>54</sup> ‘Environmental opportunities’ generally referred to land that could be easily subdivided – usually flood-free cleared agricultural land, whilst ‘environmental constraints’ referred to land with biophysical impediments or hazards to urbanisation such as flood or bushfire prone land, subject to land slip, situated within water or air catchments with existent pollution problems, and (occasionally) areas of high biodiversity value.

It has been argued that the UDP owed its effectiveness more to the political arena that it created and the policy issues it highlighted, than to the technical elements of the program itself;<sup>55</sup> and as such, “urban development programming is good politics as well as good planning.”<sup>56</sup> However, the conclusion that the UDP led to “a widespread recognition that urban expansion is now manageable, and that an efficient, equitable and environmentally sound region is at least a possibility, if not yet an actuality”<sup>57</sup> – is debatable. No evidence in terms of supporting data was advanced to demonstrate how an ‘environmentally sound region’ was an actuality, or a possibility,

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<sup>53</sup> Ibid, p 7.

<sup>54</sup> Wilmoth, above n 48, p 161

<sup>55</sup> Ibid, p 156

<sup>56</sup> Ibid, p 166

<sup>57</sup> Ibid, p 166



through urban expansion sanctioned by the UDP. The UDP continues to operate today under the auspices of the *Metropolitan Development Program* (MDP) – being renamed in 2001 to reflect a broader development program which not only includes future living areas to be provided through new land releases, but also the redevelopment for residential purposes of major infill sites in the existing urban footprint.<sup>58</sup>

## 5.5 Sydney Into Its Third Century

SROP had estimated an annual population growth rate for Sydney of 2.2%. However, it was evident by the 1970s that the growth rate was much lower than this, in the order of only 1.1%. This prompted the review of SROP in 1980, in the form of the *Sydney Region Outline Review*.<sup>59</sup> Following release of results from the 1981 Census and the NSW Ministry of Transport's 1981 travel survey, a new metropolitan strategy for Sydney was initiated. This new strategy, titled *Sydney into its Third Century* was released in 1988.<sup>60</sup> Like the Urban Development Program, the 1988 metropolitan strategy was formulated through the Urban Development Committee (UDC).

Twenty years had elapsed since the release of the *Sydney Region Outline Plan* in 1968, and the city was running out of available urban land. SROP was to guide the growth of Sydney to the end of the century when its population was anticipated to reach 5.5 million. New release areas to accommodate a population of between 4 – 4.5 million people within the region had already been identified. However, by the late 1980s these land stocks were almost exhausted yet Sydney's population was only 3.5 million. The reason for this aggressive consumption of land in Sydney was the decline in the occupancy rate or average household size, expressed in the average number of persons per dwelling. A consequence of this trend was that the rate of increase of demand for housing outstripped the rate of increase in population. New

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<sup>58</sup> Department of Planning, *Metropolitan Development Program*, (Sydney: DOP, n.d.), <http://www.planning.nsw.gov.au/Programsservices/LandSupplyandManagement/Metropolitandevlopmentprogram/tabid/126/Default.aspx>, viewed 1 January 2010.

<sup>59</sup> NSW Planning and Environment Commission, *Sydney Region Outline Plan Review*, (Sydney, PEC, 1980).

<sup>60</sup> NSW Department of Environment and Planning, *Sydney into its Third Century: Metropolitan strategy for the Sydney region*, (Sydney, DEP, 1988).



urban areas thus had to be found and existing ones extended. The 1988 metropolitan strategy was designed to guide the growth of the Sydney region to the turn of the century, when the region was anticipated to reach an estimated population of 4.5 million people.

As part of the preparation of the 1988 metropolitan strategy a parallel transport study was undertaken. Through this process, population and employment distributions could be tested and adjusted. Six growth scenarios were tested and two – a *dispersed option* and a *concentrated option* – were finally selected for further evaluation. The 1988 Plan did not set a population 'target' for a particular year, unlike the County of Cumberland Plan (2.25 million by 1980) and SROP (5.5 million by 2000). These earlier plans had miscalculated Sydney's projected population by more than one million people: the Cumberland Plan underestimated, and SROP overestimated, the Region's growth by over one million people. To overcome this flaw, the 1988 Strategy sought to plan for when Sydney's population reached 4.5 million, but did not nominate the year this population would be reached. However, at the annual growth rate of 1% then pertaining, this figure was likely to be realised around 2011.

Comparison of the 1988 metropolitan strategy and the 1968 SROP revealed that while population growth continued in the outer areas of Sydney, there were also some fundamental differences. Established urban areas were now losing population, average household size was declining and it was becoming more difficult for lower income earners to remain in many of the inner areas of Sydney.<sup>61</sup> Urban consolidation was a fundamental objective of the 1988 Strategy. With the adoption of the Strategy this growth management 'solution' became a key goal for the first time in the history of spatial planning for the Sydney Region. A policy of urban consolidation sought to address the continuing population and housing growth in the outer areas of the Region (i.e. the process of suburbanisation) and, simultaneously, the continuing decline of population in the established areas of the metropolis. The problem that this policy also sought to assist to resolve was the provision of new infrastructure and facilities in new areas while those in established areas were perceived to be underutilised.



Concomitant with the post-war shift of population to the suburbs, there had also occurred in Sydney the dispersion or suburbanisation of employment to the suburbs. Change also occurred in the type of employment, with jobs shifting from the manufacturing to service sector, located predominantly in centres in the more established eastern half of the Region.<sup>62</sup> These changes to the morphology or physical structure of Sydney were acknowledged in the 'Centres Policy' of the Whitlam Labor Government of 1972-75 managed by the Commonwealth Department of Urban and Regional Development, and the subsequent adoption of a similar policy by the NSW State Government in the early 1970's, and were the consequence of broader economic and global factors in operation in Sydney. Thus, by the late 1980s, one outcome was that 70% of all centre type jobs were located in the eastern and North Shore centres of the CBD, North Sydney, St Leonards, Chatswood and Bondi Junction.<sup>63</sup>

These changes – continued population increase and housing demand, the nature of this expansion in terms of its distribution and density, and the relocation of employment – posed new challenges in terms of managing growth and its impacts in the Sydney region. For example, as population and jobs moved away from traditional locations and transport corridors, public transport became a less attractive option. The 'modal shift' from public to private transport (motor cars) placed greater strain on – and demand for new – roads, and contributed to air pollution problems in the Sydney Basin. A combination of topography and prevailing winds results in a particularly intractable problem in the form of air pollution in Sydney<sup>64</sup> – an environmental health problem exacerbated by the location and density of growth increasing private transport reliance in the Region. Other impacts of urbanisation on the biophysical environment were also considered for the first time in the 1988 Metropolitan Strategy. Water pollution, particularly in the form of urban run-off, was seen as perhaps the greatest threat to the quality of the region's river systems as development spread. Concern over the quality of waterways – the Hawkesbury-Nepean and Georges Rivers and their tributaries such as South Creek – saw major release areas identified in SROP at South

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<sup>61</sup> Kibble, above n 52, p 7.

<sup>62</sup> Ibid, p 8.

<sup>63</sup> Ibid, p 8.

<sup>64</sup> Bridgman, H., Warner, R. & Dodson, J., *Urban Biophysical Environments*, (Melbourne, Oxford University Press, Melbourne, 1995).



Creek, Bringelly, Macarthur South and parts of the North-West Sector, deferred pending resolution of water (and air) pollution problems.<sup>65</sup> Significantly, these areas have subsequently been released, or announced for development in the most recent metropolitan strategy for Sydney (the 2005 *City of Cities*), without potential air and water pollution problems really being satisfactorily resolved.

Two broad alternative strategies – the dispersed option and the concentrated option – were subject to close scrutiny as part of the process of formulating the 1988 Metropolitan Strategy. The dispersed option was essentially one of ‘more of the same’ – i.e. further development of low density housing in the outer areas and continuing population decline in established areas. This option would also involve further employment growth in the eastern and North Shore areas and an inevitable decline in public transport usage and increased use of the road network. The concentrated option involved the adoption of a policy of strong urban consolidation (relative to what had been experienced previously in Sydney), with increased population in established areas. This option also sought the more efficient development of new release areas through increased residential densities, from an average lot yield of eight, to ten lots per gross residential hectare. Indiscriminate suburbanisation of employment, with its consequence of greater car reliance, was to be directed through the concentration of employment in major centres. Employment in the twenty largest centres was to increase, from a share of 25%, to 30% of total jobs in the Region. The growth of a ‘second CBD’ at Parramatta was a fundamental component of this option.

The concentrated option was the preferred strategy for several reasons related to sound growth management principles and goals. The concentrated strategy was favoured because it was believed that it would:

- conserve land and allow for continued growth beyond five million people
- involve government in lower infrastructure costs

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<sup>65</sup> NSW Department of Planning *Sydney's Future. A Discussion Paper on Planning the Greater Metropolitan Region*. (Sydney, DoP, 1993); Holliday, S., ‘Metropolitan Planning and Demography: Sydney as a Case Study’, in R. Freestone (ed) *The Twentieth Century Urban Planning Experience*, (Faculty of the Built Environment, University of New South Wales, Sydney, 1998); Vipond, J., ‘Regional Planning in NSW’ (2001) 38 *Australian Planner* 121.



- make better use of existing public infrastructure, which was thought to be often under-utilised
- provide better accessibility to work, community and recreation facilities
- increase the viability of public transport
- decrease pressure on the road network
- lessen the incidence of water and air pollution<sup>66</sup>

Despite its adoption of a more concentrated growth option, the 1988 metropolitan strategy still underestimated the higher levels of urban consolidation that was achieved in the 1990s, particularly on brownfields sites. A target of 9,000 multi-unit dwellings per annum was estimated under the 1988 plan. Although this was a much larger quantity of multi-unit construction than previously achieved (6,000 multi-unit housing completions per annum were being attained prior to the plan), the target would not have been sufficient to have a meaningful impact on the conservation of englobo land stocks on the fringe of Sydney. Significantly, although urban consolidation levels – measured in terms of the number of multi-unit dwellings constructed – have been even higher than predicted under the preferred concentrated option of the 1988 plan, the consumption of new land for housing on the rural-urban fringe continues, albeit at a more moderate rate.

Unlike SROP, a modicum of attention was paid to environmental and natural resource issues by the 1988 plan. Growth in motor car use, exacerbated by continued low density urban sprawl, was identified as a major cause of air quality problems in the region. The quality of the region's waterways was also a critical issue, particularly as population growth occurred in the west of Sydney. Urban run-off was perceived as the greatest threat to the region's river systems as development expanded. However, this concern over water quality was from largely a recreational perspective, with the Hawkesbury, Nepean and Georges Rivers fulfilling a major recreation role as population moved outwards and away from the coast and beaches. Consequently, it was the recreational opportunities provided by these waterways that were deemed important and so requiring protection.<sup>67</sup>

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<sup>66</sup> Kibble, above n 52, p 9.

<sup>67</sup> Ibid, p 8.



## 5.6 Cities for the 21st Century

In 1995 the NSW State Government released a new strategic plan for Sydney, *Cities for the 21st Century*.<sup>68</sup> A series of publications paved the way for this strategy. First was *Updating the Metropolitan Strategy* (1992),<sup>69</sup> which set out some of the key questions to be addressed. In 1993, the discussion paper *Sydney's Future* was published, setting out proposals for planning and managing Sydney's growth.<sup>70</sup> *Sydney's Future* was significant because it greatly expanded the planning boundaries of Sydney, by identifying and introducing the notion of the Greater Metropolitan Region of NSW. By including Sydney and its adjoining coastal regions of Newcastle, the Central Coast and Wollongong, the Greater Metropolitan Region extended from Port Stephens in the north to Kiama in the south.

*Cities for the 21st Century* was noteworthy for several reasons. First, the Strategy adopted the Greater Metropolitan Region, a planning unit identified in its precursor discussion paper, *Sydney's Future*. This adoption recognised that the impacts of Sydney's growth were being felt beyond the boundaries of the urban area of the city, and that these impacts on surrounding rural or non-urban hinterlands needed to be better planned and managed. Second, the Strategy recognised that there was little chance for Sydney's growth to be stopped. Nevertheless, a balance was sought between development and environmental protection.<sup>71</sup> Third, the Strategy sought the adoption of a long-term planning approach for Sydney that it termed *integrated urban management* – by which the Strategy was perceived as a 'corporate plan' of the whole government.<sup>72</sup> The integrated urban management approach denoted implementation by 'whole-of-government' (not just planning by a single agency) and involved proposals for new structures and processes of government, the formulation of accountable action plans for relevant State agencies, and a 'collegiate' approach to the operation of Sydney's urban system. Thus agency agreement or recognition of

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<sup>68</sup> NSW Department of Planning, *Cities for the 21st Century*, (Sydney, DoP, 1995).

<sup>69</sup> NSW Department of Planning, *Updating the Metropolitan Strategy: Invitation to Comment*, (Sydney, DoP, 1992).

<sup>70</sup> NSW Department of Planning, *Sydney's Future: A Discussion Paper On Planning The Greater Metropolitan Region*, (Sydney, DoP, 1993).

<sup>71</sup> McKenzie, F., 'Growth management or encouragement? A critical review of land use policies affecting Australia's major exurban regions', (1997) 15(2) *Urban Policy and Research*, 83 at 85.

<sup>72</sup> NSW Department of Planning, above n 68, p.11.



ownership of the Strategy was seen as crucial, particularly as this had been absent in Sydney's previous strategies.

Fourth, the strategy witnessed the emergence of globalisation in the language of planning for the Sydney region. Emphasis on managing Sydney's economic and spatial growth so as to reflect the State Government's ambition of ensuring Sydney's role as a 'global city' was clearly at the forefront of *Cities for the 21st Century*. Indeed, the whole rationale of planning as a function of government has been decidedly urban in focus, concentrating on the management of urban systems so as to promote the economic development of Sydney and hence the State of NSW. This prominence is plainly evident from the vision statement for the Greater Metropolitan Region articulated in *Cities for the 21<sup>st</sup> Century*. The vision for the region was that it be "a dynamic, sustainable and diverse community built on the Region's prominent position in the New South Wales, Australian and the Asia Pacific economies and one which enhances its special natural and cultural environments."<sup>73</sup> Whether the vision of 'enhancing Sydney's special natural environment' was mere lip-service or had the potential to be something more substantial, is open to conjecture, as *Cities for the 21<sup>st</sup> Century* was short-lived, being replaced in 1998 by a new plan, *Shaping Our Cities* (discussed below).

Notwithstanding its economic emphasis, a final notable aspect of this strategy was the 'environmental' character of aspects of its vision, which also found expression in some of the goals and key principles espoused by the strategy. This was the first time that a metropolitan strategy had recognised ecologically sustainable development and the protection and enhancement of environmental quality in the Sydney region as intrinsic and worthwhile goals in their own right. Four basic goals were identified, namely: *equity*, *efficiency*, *environmental quality* and *livability*. However, these goals were described rather broadly: for example, *efficiency* was expressed in terms of 'making best use of resources', *environmental quality* as 'using integrated environmental management to strive for ecologically sustainable development', and *livability* as 'enhancing the quality of life'.<sup>74</sup>

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<sup>73</sup> Ibid, p 4.

<sup>74</sup> Ibid, p 4.



Three key principles were proposed in order to accommodate the growth and change required to achieve these goals. The first principle – *more compact cities* – sought the continuation of the policy of urban consolidation or densification, which would result in taking up less new land, by using more intensively new and existing land and infrastructure. Significantly, the case for the compact city scenario was only tested by the then Sydney Water Board for its effect on the capacity and costs of sewerage, particularly through sprawling population growth in catchments in inland areas (such as the Hawkesbury-Nepean and Georges Rivers) compared with the effect of a consolidation of population growth on coastal sewerage systems.<sup>75</sup> The perceived benefits of a compact city approach on other forms of infrastructure were, strangely, not tested. This presumption of the perceived – but untested – benefits of urban consolidation has been criticised by some commentators.<sup>76</sup> The second principle of the 1995 Strategy – *an ecologically sustainable Region* – required, inter alia, “integration of economic growth with environmental protection and pollution control through reducing environmental impacts of transport; reducing new development in sensitive areas (including the Hawkesbury-Nepean Basin); [and] improving standards of environmental management.”<sup>77</sup> Clarifying this point however, it would appear that what was meant by a *reduction* of the environmental impacts of development was the *mitigation* of the effects of this development, as distinct from environmental considerations *constraining* development. *Effective implementation* of the strategy by means such as integration of economic development, environmental management, transport and land use planning, was the third key principle.

The key Strategy principles of more compact cities and an ecologically sustainable region provided the basis for managing growth and change in the Greater Metropolitan Region. These principles were expanded into a number of specific strategic principles that were to guide the shape of the region. Pertinent strategic principles included:

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<sup>75</sup> Ibid, p 60.

<sup>76</sup> Undoubtedly the most strident critic of the NSW State Government’s urban consolidation policy has been the planning academic Patrick Troy: see, for example, Troy, P., *The Perils of Urban Consolidation: A Discussion of Australian Housing and Urban Development Policies*, (Leichhardt, The Federation Press, 1996).



- To establish and enhance green corridors between each urban area to ensure a continuous conurbation did not develop in the Greater Metropolitan Region.
- To control the location, scale and character of urban expansion and urban support activities so that impacts on the environmental quality of the region were minimised.
- To contain urban expansion within linear corridors along major transport routes, principally the rail network, to maximise the efficiencies of development and to reduce individual dependency on the motor car.
- To control the encroachment of urban and rural-residential development into rural areas so that agriculture was not unnecessarily displaced, recreational and tourism resources were retained and valuable habitats protected.<sup>78</sup>

In theory, *Cities for the 21<sup>st</sup> Century* did attempt to place some weight on enhancing environmental management of the Sydney region. In addition to ESD being recognised as a key principle of the 1995 Strategy, integrated environmental management was seen as a way to allow ESD principles to be applied in the management of the urban system of the Region. The principles upon which the Strategy perceived integrated environmental management were broad-ranging, and included implementing precautionary policies to prevent environmental degradation and conserve the biological diversity of species and ecosystems, linking preventative environmental protection and pollution control mechanisms, integrating transport and land use planning with environmental management policies, and encouraging minimum resource use and recycling.<sup>79</sup> Significantly, integrated environmental management was perceived as important because it recognised that it was “not sufficient to consider single issues in isolation, but that environmental protection and pollution control measures must be brought together in a single framework”.<sup>80</sup> This meant that several key conceptual linkages required as preconditions for effective planning and management of urban growth, natural resources and environmental quality were envisaged as fundamental to the 1995 Metropolitan Strategy, viz.:

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<sup>77</sup> NSW Department of Planning, above n 68, p 4.

<sup>78</sup> Ibid, pp 54-55.

<sup>79</sup> Ibid, p 14.

<sup>80</sup> Ibid, p 62.



- comprehensive links between planning processes and the setting of key environmental objectives, particularly for air and water quality;
- integrating environmental and land use planning processes so that environmental objectives and policies become a central and routine part of the initial assessment of alternative land use options; and
- strengthening links between the environmental planning process, resource management measures (which included protection of threatened species and critical habitat) and pollution controls.<sup>81</sup>

In addition, *Cities for the 21st Century* contained a number of specific goals and objectives in relation to water and air quality, conserving species and ecosystems, reducing bushfire hazards, management of waste, protecting agriculture, improving energy efficiency, and enhancing regional open space. Water quality objectives included the development of catchment management plans through the cooperative efforts of government agencies and local councils, and setting levels for the use of water including environmental allocations through recognition of ecological flow requirements. Here again, integrated environmental management was targeted as it was perceived as recognising

...the critical role of catchment management in strengthening links between water quality and the environmental planning process and pollution controls. Catchment management provides a context within which the impact of management and development activities upon all aspects of the water cycle can be considered and sustainable use of resources promoted.<sup>82</sup>

Protection of water resources in the Region was to be achieved through a number of specific State Government policy initiatives relating to all aspects of this resource – protection and monitoring of catchments, beaches and Sydney Harbour, stormwater, water supply, sewerage treatment, effluent recycling, floodplain management and groundwater.

With respect to conserving native species and ecosystems, the major problem in the Region was identified as habitat clearing and destruction. The solution to this problem was seen to lie “not only in the reservation and/or protection of critical

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<sup>81</sup> Ibid, p 62.

<sup>82</sup> Ibid, p 63.



habitat areas, but in the better management of natural ecosystems”.<sup>83</sup> A number of specific measures were identified that could be employed to improve standards of planning and management of habitat areas. Some of these were statutory in character and included:

- state of the environment reporting under the *Local Government Act 1993*, which requires local councils to monitor and report on habitat and species management;
- management plans for bushland areas, also prepared under the *Local Government Act 1993*; and
- a review by the Department of Planning of the operation of *State Environmental Planning Policy No 19 – Bushland in Urban Areas*. This Policy commenced in October 1986 and aims to protect and preserve bushland in urban areas.<sup>84</sup> Unfortunately, this foreshadowed review failed to materialise. Whether this failure was indicative of the priorities of the 1995 metropolitan plan being elsewhere, or merely due to the plan being superseded in 1998, is open to debate.

Agriculture in the Sydney Region was seen as often being devalued. Estimates at the time by NSW Agriculture placed the annual farm gate production in the Sydney area alone to be worth at least \$1 billion, with flow-on effects to the economy of \$2-3 billion. Agriculture was also seen as having important links with other planning issues, such as cultural heritage and scenic quality. The 1995 Metropolitan Strategy indicated that NSW Agriculture would work with local government to prepare a strategic plan for agriculture. This plan, which did not eventuate, was to “provide for the long-term future of the agricultural resource basis of the Region and ensure agriculture is able to make its full contribution to the Region’s sustainable development”.<sup>85</sup> It was envisaged that the strategic plan would recognise the economic, environmental, heritage and cultural value of agriculture and its relationship to other land uses, and be based on a comparative assessment of agricultural production and potential. Government inaction on this plan, and a

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<sup>83</sup> Ibid, p 66.

<sup>84</sup> *SEPP No 19 – Bushland in Urban Areas*, published in Gazette No 169 of 24 October 1986.

<sup>85</sup> NSW Department of Planning, above n 68, p 68.



contrary perception of agriculture articulated in the two subsequent metropolitan strategies, signifies a policy reversal on this front by the State Government.

While open space was recognised by the Strategy as including land in public and private ownership and land used for rural and agricultural purposes, it was mainly public regional open space that was deemed to be strategically significant. Provision of open space in the Greater Metropolitan Region was seen as important for a variety of reasons – it may have natural and cultural features of environmental, scientific, heritage and conservation value, it may be wildlife habitat or landscapes with special visual qualities, it provides a wide choice of recreational experiences, and is necessary for the collection and storage of potable water, timber and food production.<sup>86</sup>

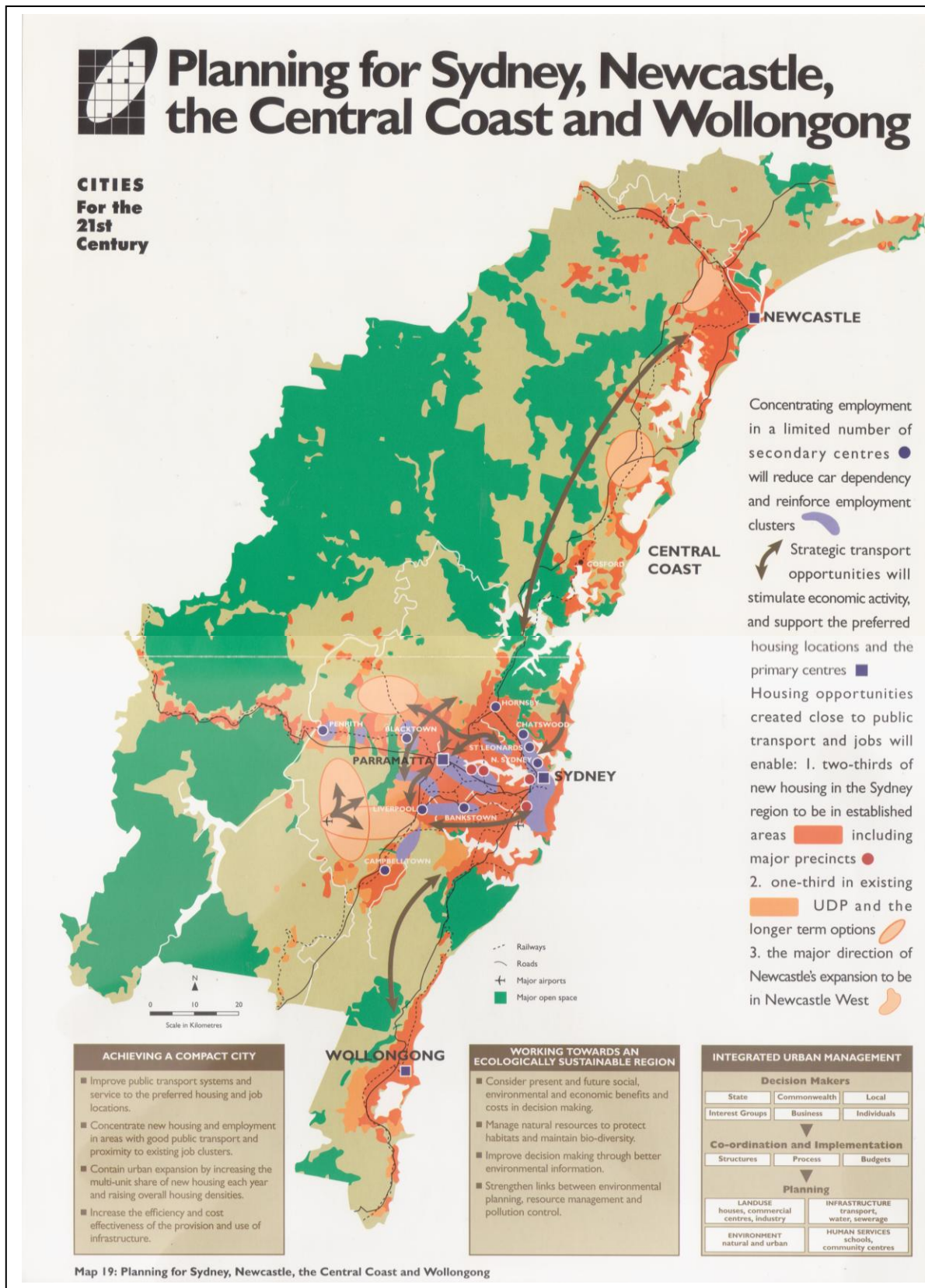
A map of the main land uses of the Greater Metropolitan Region contained in *Cities for the 21<sup>st</sup> Century* shows the pattern of open space and its relationship to built-up urban areas and the coastal rivers, waterways and South Pacific Ocean (see *Map 5.1: The Expanded 'Green Belt' for Sydney?*). The rugged terrain of the national parks, state forests and catchment protection areas were seen as separating the three coastal cities and assisting in regional identity. Not for the first (or last) time, Sydney was perceived as “surrounded by national parks”. Unfortunately, this perception is misleading and potentially damaging from a natural resource conservation perspective. One of its consequences is the policy expressed in the latest Metropolitan Strategy that the Sydney Basin should primarily be used for urbanisation, and that ample open space/non-urban land exists around the periphery of the city. In other words open space, in its broadest sense, is perceived as an exurban issue that really has no part in a modern, more intensively urbanising global city. This is a view all too simplistically visualised in one of the maps produced by the Department of Planning to explain the rationale of the current Metropolitan Strategy, *City of Cities* (see *Map 5.2: 'Planning for Dummies'?*). A further manifestation of this planning caricature is that open space, where it exists in urban areas, is perceived as primarily contributing to amenity rather than nature conservation.

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<sup>86</sup> Ibid, p 69



Map 5.1: The Expanded 'Green Belt' for Sydney?



Source: Department of Planning, Cities for the 21<sup>st</sup> Century, 1995





**Map 5.2: 'Planning for Dummies'?**

Source: Department of Planning, 2006

## 5.7 Shaping Our Cities

*Cities for the 21st Century* was released in January 1995. Less than 4 years later, in December 1998, the Department of Urban Affairs and Planning released an 'updated' strategy for the Greater Metropolitan Region, titled *Shaping Our Cities*.<sup>87</sup> However, *Shaping Our Cities* was less about reviewing or changing the planning strategy for Sydney, than providing a point of differentiation and 'ownership' of this strategy by the NSW State Labor Government in the lead up to the 1999 State election, given that *Cities for the 21st Century* had been produced during the term of the previous Liberal-National Party Coalition Government. In substance and direction there was little difference between the 1995 and 1998 strategies, although *Shaping Our Cities* was significantly less detailed and diagnostic than *Cities for the 21st Century*. *Shaping Our Cities* was also appreciably less 'spatial' in orientation than any of the previous plans produced for Sydney. Rather, it was a general strategic document outlining broad planning objectives, rather than a more detailed spatial strategic plan.

*Shaping Our Cities* identified six key planning principles for the Sydney Region. Only one of these related to environmental and natural resource issues. This principle was to "protect and improve our natural and cultural environments so as to sustain biological, water and air resources, to conserve Aboriginal heritage and to enhance our enjoyment of parklands".<sup>88</sup> The document was slim – 30 pages – and was divided into the themes of *environment*, *homes*, *work*, *travel* and *action*. Each theme consisted of a

<sup>87</sup> NSW Department of Urban Affairs and Planning, *Shaping Our Cities*, (Sydney, DUAP, 1998).

<sup>88</sup> Ibid, p 8.



list of very broad – even vague – objectives, Government achievements, and initiatives (that is, what the Government proposed to do). *Shaping Our Cities* was not so much a plan, as a public relations exercise.

## 5.8 The need for a new strategy for Sydney

Having only released *Shaping Our Cities* in December 1998, in 2004 the Minister announced that the State Government was to embark on yet another metropolitan strategy for the Sydney Region. Released in December 2005 as *City of Cities – A Plan for Sydney's Future*<sup>89</sup> – this would become the fourth plan that Sydney would have in 17 Years – that is the time between *Sydney Into Its Third Century* in 1988 and its latest strategy in 2004-05. Despite the relatively short time period that had elapsed since the completion of *Shaping Our Cities*, there were soon calls from several influential sources – from within State Government itself, local government and the development industry – for a new metropolitan plan for Sydney. Within State Government, the necessity for a new metropolitan strategy was one of the main recommendations of the PlanFirst Review Taskforce.<sup>90</sup> In 2002, frustration amongst Western Sydney local councils over the deficiency of metropolitan strategic planning led to 13 councils combining to draft a framework document for the Western Sydney subregion.<sup>91</sup> Known as *Future West*,<sup>92</sup> this document did not pretend to be a strategic plan as such, but was designed to provide a regional planning and management framework for Western Sydney which the author councils wanted to have considered by State Government, and indeed was launched by WSROC in 2005 as the region's contribution toward the latest metropolitan planning process.<sup>93</sup>

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<sup>89</sup> NSW Department of Planning, *City of Cities – A Plan for Sydney's Future*, (Sydney, DoP 2005), <http://www.metrostrategy.nsw.gov.au/dev/uploads/paper/governance/index.html>, viewed 12 June 2006.

<sup>90</sup> Department of Infrastructure, Planning and Natural Resources, *Planning System Improvements. Report by the PlanFirst Review Taskforce to the Minister for Infrastructure and Planning and Minister for Natural Resources*, (Sydney, DIPNR, 2003), p 16.

<sup>91</sup> Interview with Sharon Fingland, Assistant Director, Western Sydney Region Organisation of Councils (WSROC) (Blacktown, 13 August 2007). In 2002 the mayors of the cities and shires of Greater Western Sydney, along with the presidents of WSROC (Western Sydney Regional Organisation of Councils) and MACROC (Macarthur Regional Organisation of Councils), released a regional mayoral statement seeking a greater say in development in local areas and across the region on broad aspects of urban growth and land supply.

<sup>92</sup> Western Sydney Region Organisation of Councils Ltd, *Future West*, Final Report, (Blacktown, WSROC, 2005).

<sup>93</sup> Interview with Sharon Fingland, Assistant Director, Western Sydney Region Organisation of Councils (WSROC) (Blacktown, 13 August 2007).



Arguably the most influential push for a new metropolitan plan for Sydney came from the development industry,<sup>94</sup> with the Property Council of Australia releasing a discussion paper titled *Metro Strategy: A Property Industry Perspective* in 2004.<sup>95</sup> Grounds of the Property Council's push for a new plan included the need to give direction to private sector investment and development decisions, to guide much needed infrastructure provision, and to give a framework for local planning.<sup>96</sup> To obtain these goals, a new plan that set location- and density-specific targets for population and employment, and to set job targets for key centres, were seen as key requirements. The development industry vision of a metropolitan plan with an economic and development focus – to the possible detriment of environmental protection and natural resource management – is thus “writ large the *City of Cities* strategy and its supporting documents.”<sup>97</sup>

Recognition of the need for a new integrated, comprehensive and detailed metropolitan strategy was a clear admission of the perceived failure of Sydney's three previous plans. Alarming, during this period of strategic spatial planning paralysis at the regional or metropolitan level, Sydney continued to grow and the quality and extent of high value natural resource areas were further degraded.

## 5.9 City of Cities

The current Metropolitan Strategy for Sydney is *City of Cities – A Plan for Sydney's Future*<sup>98</sup>, released in December 2005 (*Map 5.3* refers). While *City of Cities*, has rightly been described as “probably the most comprehensive planning strategy that Sydney has had since its first strategy” in 1951,<sup>99</sup> it was arguably developer-led, and certainly bears the hallmarks of a blueprint to satiate developer desire for the further – and possibly the complete – urbanization of the Sydney basin.

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<sup>94</sup>Searle, G., ‘Is the City of Cities Metropolitan Strategy the Answer for Sydney?’, (2006) 24(4) *Urban Policy and Research*, 553.

<sup>95</sup> Property Council of Australia, *Metro Strategy: A Property Industry Perspective*, (Sydney, PCA, 2006).

<sup>96</sup> Ibid.

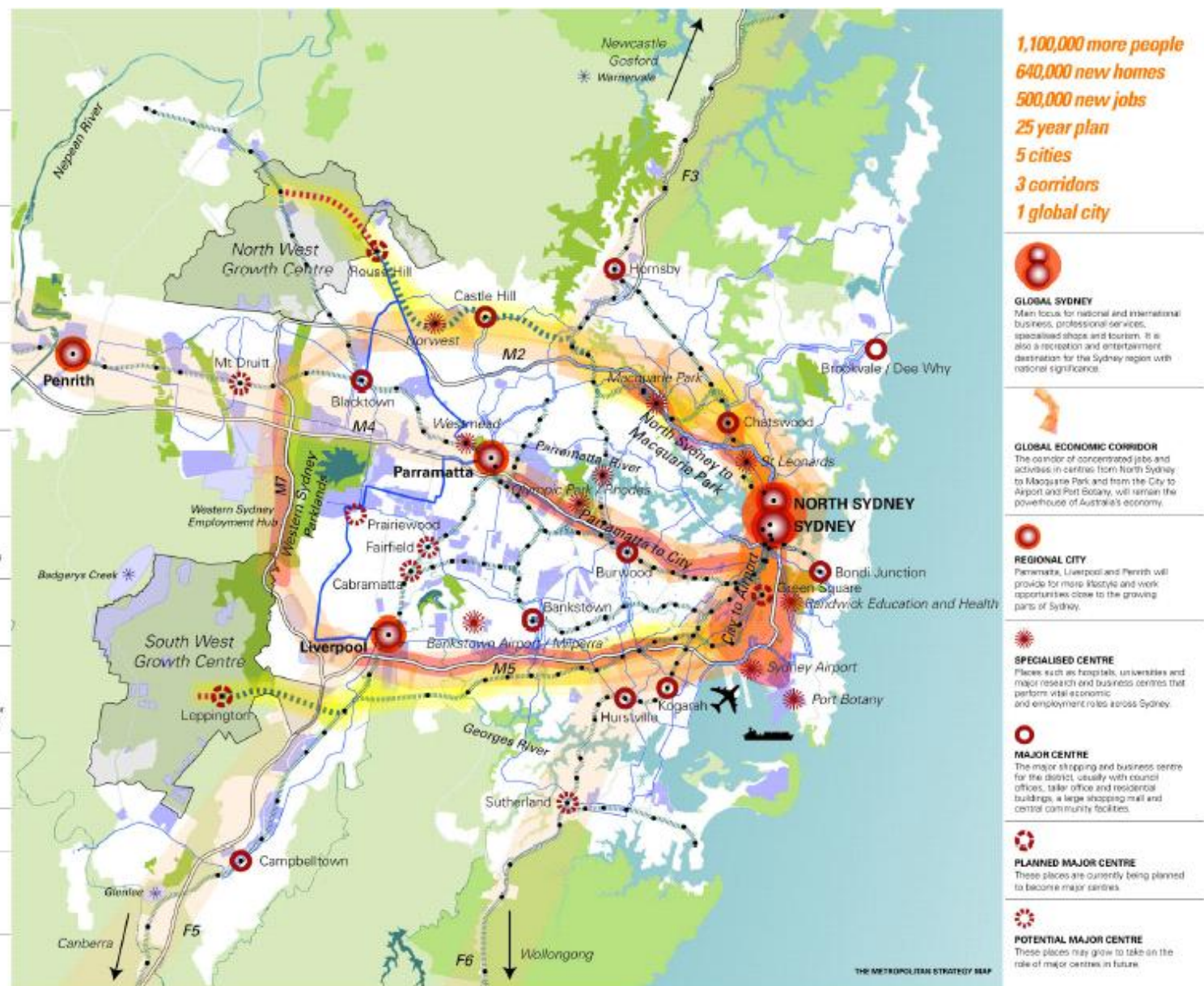
<sup>97</sup> Searle, above n 94, p 553.

<sup>98</sup> Department of Planning, above n 89.

<sup>99</sup> Searle, above n 94, p. 533.



Map 5.3: City of Cities – A Plan for Sydney's Future



Source: Department of Planning, 2005



The Metropolitan Strategy has five aims: 1. Enhance liveability; 2. Strengthen economic competitiveness; 3. Ensure fairness; 4. Protect the environment; and 5. Improve Governance. For the purposes of this thesis, Aim No.4 – Protect the environment – is particularly relevant. It seeks to “protect Sydney’s unique environmental setting and reduce the city’s use of natural resources and production of waste.”<sup>100</sup> Seven specific strategies or subject areas are delineated for achieving these five aims. The seven strategies are: A. Economy and Employment; B. Centres and Corridors; C. Housing; D. Transport; E. Environment and Resources; F. Parks and Public Places; and G. Implementation and Governance. Each of these strategies is implemented, in turn, by various objectives consisting of numerous actions. Some of the constituent objectives and actions applicable to the strategies of Housing, Environment and Resources, and Parks and Public Places, are of particular relevance to this thesis and are considered later in this chapter.

The *City of Cities* strategy is intended as the plan for Sydney over the 25 years between 2006 and 2031. During this time the city’s population is forecast to increase by 1.1 million people, from 4.2 million to 5.3 million. To accommodate this predicted population growth and the anticipated fall in average household size,<sup>101</sup> it is estimated that 640,000 new homes would be required. Thus an objective (*Objective C1*) of the strategy is to “ensure adequate supply of land and sites for residential development” and several actions are identified to achieve this objective. Relevantly, two of these actions relate to the distribution of this future housing development, with 30%-40% of new housing to be provided in land release areas (*Action C1.1*) and 60%-70% of new housing to be provided in existing urban areas (a component of *Action C1.3* which aims to “plan for increased housing capacity target in existing areas”). These two actions translate to 445,000 new dwellings projected for the existing areas of Sydney, consistent with an ongoing policy of urban consolidation, and 195,000 forecast for new release areas, 135,000 of which were to be located in the North West and South

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<sup>100</sup> DoP, above n 89, p 3.

<sup>101</sup> Even if there was zero population growth over that time, i.e. births and migration equal deaths, 190,000 new homes would still be required in Sydney to respond to demographic changes where fewer people are living in each home – specifically average household size is anticipated to fall from 2.65 to



West Growth Centres, and 60,000 in other greenfield areas.<sup>102</sup> An additional 25,000 dwellings were to be built in the Growth Centres between 2032 and 2041, giving a total dwelling capacity in the Growth Centres of 160,000 dwellings; this was subsequently adjusted to 181,000 dwellings following the abandonment of the ‘green zones’ by the State Government in 2006. It should also be noted that residential densities higher than those traditionally achieved in new release areas in Sydney, will be required in the two Growth Centres (further discussed below).

The distribution and density of new urban growth in Sydney under the current Metropolitan Strategy is open to two different interpretations, based on the information provided by the Department of Planning. The first, a somewhat sobering observation in terms of protecting non-urban lands and biodiversity in Sydney, is based on the scenario of the growth pattern of the preceding 30 years (1975-2005) being replicated over the next 25 years (2005-2031). Continuation of this growth pattern over the lifetime of the Metropolitan Strategy would, the Department estimates, require an additional 850 sq.km of urban land on the fringe of Sydney (see *Map 5.4*). It is in part this fear of the unabated spread of Sydney’s urban footprint which has steeled the Department to resist developer pressure for additional ‘unplanned’ land releases.

The second more optimistic observation, relates more to the possible ‘success’ of the State Government’s urban consolidation policy in protecting (or at least deferring) land on the fringe of Sydney from urbanization. Urban consolidation in terms of the residential redevelopment of exiting (‘brownfield’) sites in Sydney and the higher residential densities now required in new release areas has, according to the Department, significantly reduced the expansion of Sydney’s urban footprint compared to the take up of non-urban land that would have occurred had not these policies been in place (*Map 5.5* refers). The amount of new urban land required under this preferred scenario is only about 350 sq.km, and is largely situated in the remaining MDP areas and the two Growth Centres.

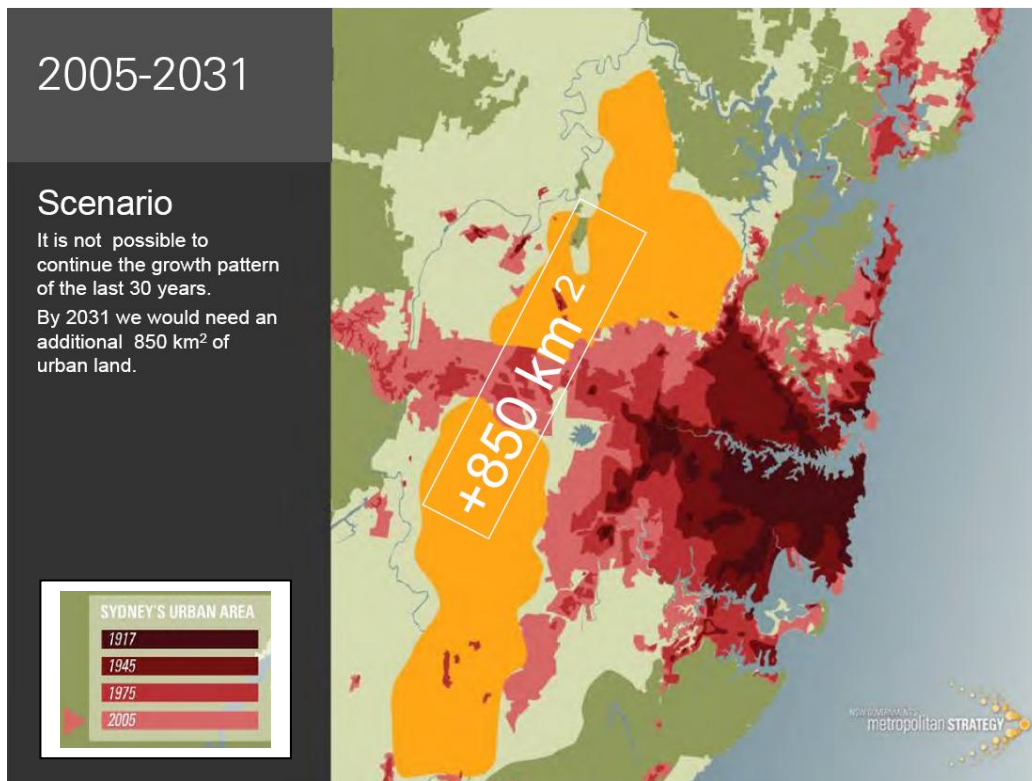
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2.36 people per private dwelling between 2006 and 2031. (See Department of Planning, *City of Cities – A Plan for Sydney’s Future*, (Sydney, DoP, 2005) at pp 7 and 27.

<sup>102</sup> Department of Planning, above n 89, p 141.

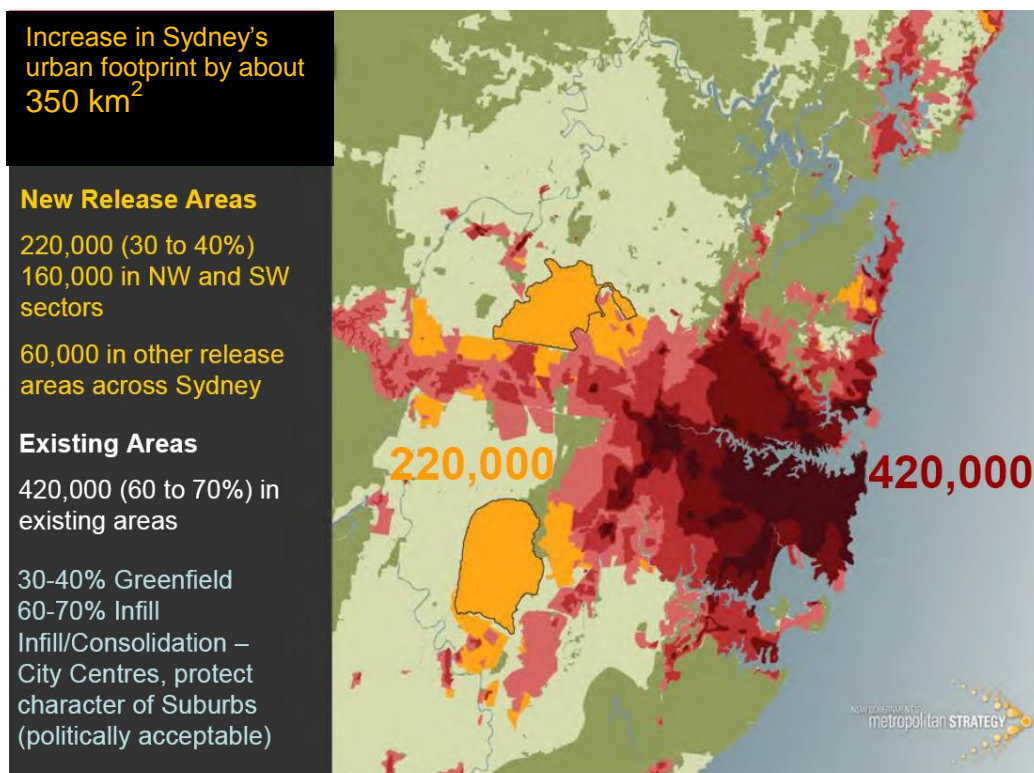


**Map 5.4: Growth in Sydney's urban footprint, 2005-2031, without growth controls**



Source: Department of Planning, 2005

**Map 5.5: Growth in Sydney's urban footprint, 2005-2031, with growth controls**



Source: Department of Planning, 2005



A further pertinent action of the Metropolitan Strategy in relation to housing is the application of sustainability criteria for new urban development (*Action C1.2*). Here, proposed land release areas are to be assessed against sustainability criteria and infrastructure funding. As a precursor, a general qualitative assessment of all land identified for release within the Growth Centres was provided by the then NSW Sustainability Commissioner, Professor Peter Newman in November 2004.<sup>103</sup> This assessment was based on eight sustainability criteria, with a ranking assigned to each criteria ranging from ‘Poor’, ‘OK’, ‘Good to Best’, depending on how well the Sustainability Commissioner believed that the criteria “have been addressed in terms of global best practice for land development and also in terms of accepted practice in Sydney.”<sup>104</sup>

Of relevance to this thesis is Criteria 1: Natural Resources, and Criteria 2: Environmental Protection. Specifically, Criteria 1: Natural Resources, is “to live within natural resource limits and minimize ecological footprint”. Factors examined under this criterion are water, land, energy/greenhouse, materials, and waste. In relation to water, the benchmark is to “manage total water cycle to keep water extraction levels within sustainable yields”; whilst for land it is to “minimize urban footprint and disruption”. For the new land release areas the Natural Resources criterion has been rated overall by the Sustainability Commissioner as being “close to world ‘best’ practice as water, energy and land are significantly more conserved than in average developments.”<sup>105</sup>

Criteria 2: Environmental Protection, aims “to protect and enhance biodiversity, air, water and agricultural land.” Within this criterion the biodiversity benchmark is to “save core biodiversity values and enhance natural ecosystem of the bioregion”; for water quality it is to ‘maintain and improve waterway health’; and for agricultural land to “ensure important agricultural land is conserved.” For new land release areas

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<sup>103</sup> Newman, P., ‘New Land release Areas and Sustainability Criteria’, letter from the NSW Sustainability Commissioner to DIPNR, (Sydney, DIPNR, 11 November 2004), [http://www.metrostrategy.nsw.gov.au/dev/digitalAssets/844\\_1102557381520\\_Sustainability%20Commissioner%20on%20Land%20Release.pdf](http://www.metrostrategy.nsw.gov.au/dev/digitalAssets/844_1102557381520_Sustainability%20Commissioner%20on%20Land%20Release.pdf), viewed 13 December 2008.

<sup>104</sup> Ibid, p.1.



this criterion rates as “‘good’ to ‘best’ practice as one of the major features of the area is the new ways that the environment will be protected however air and water quality limits are approaching so any development has to be very clean.”<sup>106</sup> Yet the allocation of this level of rating is debatable – although there will be habitat protection through open space dedications, the North West and South West Growth Centre boundaries correspond to some of the major rural and prime agricultural lands remaining in the Sydney basin.<sup>107</sup>

Here, despite the positive ratings of the sustainability criteria of natural resources and environmental protection, two points are of concern. First, in his report the Sustainability Commissioner “raises the question of whether the Land Release areas are needed at all. Is it possible to somehow stop Sydney growing or at least prevent any further fringe growth?”<sup>108</sup> Second, it appears that *additional* urban development outside the identified Growth Centres may be approved if it meets the eight sustainability criteria,<sup>109</sup> which would undermine the reason for the Growth Centres in terms of the objectives of the sustainability criteria such as minimizing Sydney’s ecological footprint and to protect and enhance biodiversity, water and agricultural land. Evidence of developer pressure for further land releases outside the designated Growth Centres release areas were raised during interviews conducted for this thesis, and has since been confirmed by reports in the news media: this is a significant development and places heavy pressure on the State government to further extend the apparently inexorable growth of Sydney. Further analysis of this scenario is provided below.

Subsequent to the publication of *City of Cities*, the Department of Planning also produced subregional strategies for the 10 subregions comprising the Sydney Region, and several regional strategies for other regions in NSW. These were prepared both in response to development industry demand for more detailed strategic planning,<sup>110</sup> and

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<sup>105</sup> Ibid, p.4.

<sup>106</sup> Ibid.

<sup>107</sup> Interview with Sharon Fingland, Assistant Director, Western Sydney Region Organisation of Councils (WSROC) (Blacktown, 13 August 2007).

<sup>108</sup> Newman, above n 103, p.2.

<sup>109</sup> Searle, above n 94, p.556.

<sup>110</sup> Property Council of Australia, above n 95.



representations by local councils and the Department of Local Government for the then Department of Planning, Infrastructure and Natural Resources to work cooperatively with local councils to enhance the successful implementation of the Metropolitan Strategy.<sup>111</sup> Each subregion is generally constituted by several local government areas. The purpose of the subregional strategies is to provide direction for local strategic planning endeavours and to facilitate the implementation of the Metropolitan Strategy at the local government area through each council's statutory planning controls, in particular local environmental plans. Regional strategies on the other hand, represent a 'rediscovery' of non-metropolitan regional strategic planning. The regional strategies guide urban growth management in regional and rural NSW, and again inform more detailed strategic and statutory planning by constituent local councils.

Since early 2006 the Department of Planning has relied heavily on the Metropolitan Strategy and its constituent subregional strategies, and separate regional strategies produced for the rest of the State. These have afforded the major policy platform and framework for managing urban growth both in Sydney and across NSW.<sup>112</sup> Completing the broad brush contemporary metropolitan and regional strategic planning framework in NSW are the activities and plans relating to the North West and South West Growth Centres (discussed further in Chapter 7) and the six regional city centre plans produced by the Cities Taskforce, a group set up within the Department of Planning to roll out the 'polycentric' city concept of the Metropolitan Strategy. Implementing these (mainly) strategic plans at the local level, are a raft of (standardised) local council local environmental plans (LEPs) and development control plans (DCPs) – see *Figure 5.1: Metropolitan and Regional Planning Framework*.

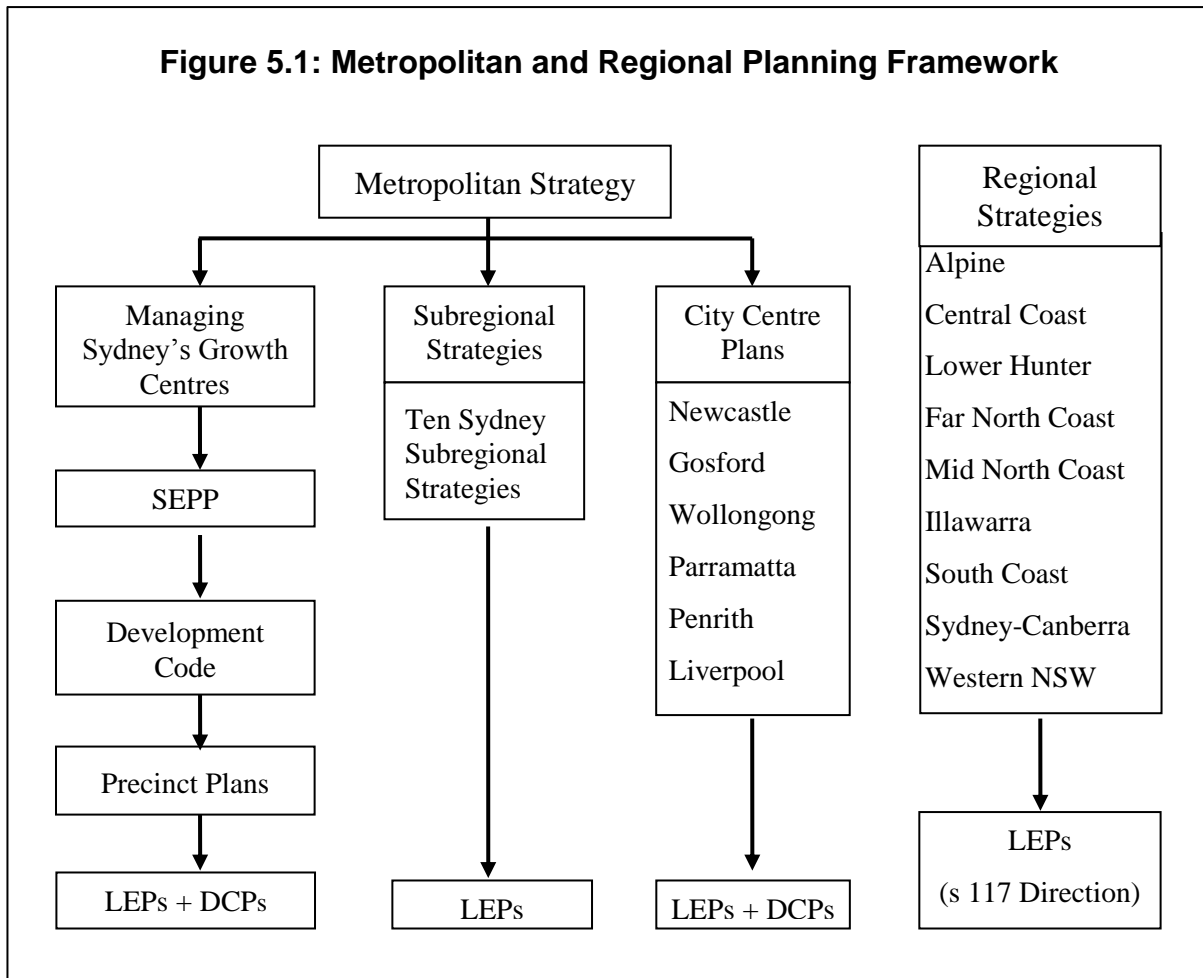
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<sup>111</sup> Interview with Sharon Fingland, Assistant Director, Western Sydney Region Organisation of Councils (WSROC) (Blacktown, 13 August 2007).

<sup>112</sup> Interview with Phillip Leijten, Acting Manager, Planning Reform, NSW Department of Planning (Sydney, 20 December 2007).



**Figure 5.1: Metropolitan and Regional Planning Framework**



Source: Author

## 5.10 Guiding the size, shape and function of Sydney?

Not only have the actual size, shape and function of the Sydney region changed over time: so too has State Government perception and resultant policy emphasis of these characteristics changed as well. In the period between the *County of Cumberland Plan* and *Shaping Our Cities*, the geographical area addressed in the planning of the 'Sydney region' increased to include a much larger area. At the same time however, there was little change in the total area categorised as capable of future urban development because of the extensive national park and reserve areas and water catchments created around the city and the physical unsuitability of steep or flood-prone land (see *Map 5.1*).



In the short time that had elapsed between the 1988 and 1995 metropolitan strategies, it was announced that several significant aspects had changed, new trends were in force, and that new environmental and economic considerations required responses.<sup>113</sup> One of these aspects or considerations within the region which was submitted to be perceived differently was rural areas:

The rural areas are now seen in a different light, acknowledging their value for conserving the natural attributes of the Region, adding to its livability with resources for recreation and tourism, supporting agriculture which provides a major source of economic activity and employment, and containing valuable coal, gas and extractive industry resources. These areas should now be positively managed to maintain and enhance this value.<sup>114</sup>

The compact city was therefore adopted as the approach to guide the shape of the Sydney urban area. This approach was perceived as responding to the pressures coming from urban expansion and the stated desire to maintain and conserve the values of the region's rural and natural areas. Yet the longevity of this approach is arguable. The focus of *City of Cities* on efficient urbanisation and policy announcements by State Government unequivocally reveal that the perception regarding the 'value' of rural – particularly agricultural – land in its undeveloped state within the Sydney region has again shifted significantly.

The earlier approach of *Cities for the 21<sup>st</sup> Century*, of protecting rural land in the Sydney basin has largely evaporated. Indeed, local councils on the fringe of Sydney such as Camden Council had assumed, prior to the release of *City of Cities* and its two growth centres, that Camden would remain largely rural – given the significant number and production of market gardens in the locality – and that the release areas in the Government's Metropolitan Development Program at the time would be as much development that was going to occur in that part of Sydney.<sup>115</sup> *Cities for the 21<sup>st</sup> Century* had a vision whereby "the edges of the urban areas will be clearly defined with distinct green areas ensuring they do not coalesce, providing an overall pattern of

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<sup>113</sup> NSW Department of Planning, above n 68, p 54.

<sup>114</sup> Ibid, p 54.

<sup>115</sup> Interview with Sue Morris, Director, Development and Environment, Camden Council (Camden, 23 May 2007).



separate vibrant cities, each benefiting from efficient transport links between them”.<sup>116</sup> Unfortunately, the continued loss of some significant agricultural land – and the Department of Primary Industry’s apparent inability to stop this loss – plus the more recent experience over the abandonment by the State Government of the proposed ‘green zones’ in and around the North West and South West Growth Centres, have undermined this vision.

A related criticism of strategic planning for Sydney through *City of Cities*, and in other parts of NSW where regional strategies have been prepared (in particular the Lower Hunter) has been that strategic planning responds to demographic and economic growth pressures, rather than directing this growth.<sup>117</sup> In the case of Sydney, this means that 30-40% of the 640,000 extra houses needed to accommodate the increased population of 1.1 million people by 2031 will be placed on greenfield sites, where biodiversity, agricultural land and other biophysical issues are most likely to arise. Indeed,

Sydney’s strategic planning follows demographic trends and consumer choices as to housing type and locations, rather than considering if these are sustainable and, if not, offering alternative locations for growth and housing choices. Would growth in regional centres, with supporting infrastructure and transport links to Sydney, ease the pressure on biodiversity in the Sydney region?<sup>118</sup>

This observation, and a more sustainable solution to Sydney’s urban growth problems, is not new – and neither is the failure of successive State governments to positively respond to these problems. The environmental constraints on Sydney’s continued physical growth were first articulated in the 1988 metropolitan strategy *Sydney into its Third Century*, and while potential land release areas in environmentally sensitive locations were deferred, no solutions were offered in terms of how this growth might be redirected. ‘Counter-intuitive’ options, such as directing Sydney’s growth *outside* the Sydney basin rather than expand or intensify development within it, were nonetheless being offered at this time as a planning (i.e. a preferred urban morphology or ‘built form’) solution to the environmental and biophysical aspects of Sydney’s

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<sup>116</sup> NSW Department of Planning, above n 68, p 61.

<sup>117</sup> Robinson, D. ‘Strategic planning for biodiversity in New South Wales’ (2009) 26 *Environmental and Planning Law Journal* 213.



growth.<sup>119</sup> Integral to this solution is the provision of the necessary infrastructure in the designated urban growth areas and improved transport linkages between Sydney and regional NSW to ensure acceptable inter-regional accessibility.<sup>120</sup> The need for improved transport linkages to facilitate growth outside the Sydney basin was intimated by the Sustainability Commissioner, Professor Peter Newman, and is seen as a substantial impediment to the DoP managing Sydney's growth in the context of its surrounding regions, such as the Shoalhaven.<sup>121</sup> Indeed, there was dismay that the northern part of the Shoalhaven area – bounded by the Shoalhaven River – was not given recognition in terms of its functional linkages with Sydney and Wollongong in either *City of Cities* or the *Illawarra Regional Strategy*.<sup>122</sup> This insularity is reflective of the shrinking of the planning boundaries for Sydney evident in *City of Cities*, which ignores the broader geographic impacts and linkages of Sydney on surrounding areas of the State.

### **5.11 The course of statutory reform – the *Environmental Planning and Assessment Act 1979***

Considered here are the parallel – but interlinked – reforms to the NSW statutory planning system that occurred while the changes described above to strategic planning for Sydney were taking place. Apparent here is a significant disjuncture between State-level strategic and statutory planning, particularly in the area of natural resources and biodiversity conservation.

As indicated in Chapter 1 and briefly described in Appendix 'A', a 'new' statutory system of environmental planning in the form of the *Environmental Planning and Assessment Act 1979* ('EP&A Act') commenced in NSW on the 1 September 1980. The applicable strategic plan for Sydney at this time was the 1968 *Sydney Region Outline Plan*. Although the subsequent *Sydney Outline Plan Review* had been released

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<sup>118</sup> Ibid, p 223.

<sup>119</sup> Cardew, R., 'The growth of Sydney and the environment: What are the options?', in R. Harding (ed), *Ecopolitics V Proceedings*, (Kensington, UNSW, 1992), pp 667-674.

<sup>120</sup> Ibid, pp 672-673.

<sup>121</sup> Interview with Gordon Clark, Strategic Planning Manager, Shoalhaven City Council (Nowra, 13 April, 2007).

<sup>122</sup> Interview with Gordon Clark, Strategic Planning Manager, Shoalhaven City Council (Nowra, 13 April, 2007).



in the same year that the EP&A Act commenced, there was no connection between the review of SROP and the introduction of the Act. Review of SROP was commenced in 1974, following the related release of journey to work data which affected projections on which the plan was based. The process of drafting new environmental planning legislation for NSW also began in 1974, and the Environmental Planning and Assessment Bill was eventually tabled in Parliament in 1979. Although there were several amendments to the EP&A Act in the following years, it was not until 1995 that the first significant reform occurred. Since this time, planning system reform has been ongoing, with the EP&A Act subject to continuous review and frequent – indeed incessant – amendment.

The *Threatened Species Conservation Act 1995* integrated threatened species requirements into the EP&A Act by introducing a number of major amendments to the Act, several of which are described here. First, the objects of the EP&A Act were amended to include the protection and conservation of native animals and plants, including threatened species, populations, and ecological communities, and their habitats as an object of the Act.<sup>123</sup> Second, provisions were introduced which provided a list of factors to be taken into account when determining whether there is likely to be a significant effect on threatened species by a development or proposal.<sup>124</sup> Third, the EP&A Act was amended to enable environmental planning instruments to make provisions with respect to threatened species and to require them to identify areas of critical habitat.<sup>125</sup> Fourth, the requirement for a species impact statement was introduced where proposed development is on land that is critical habitat or where the development is likely to significantly affect threatened species, populations or ecological communities, or their habitats.<sup>126</sup> Fifth, consultation and concurrence roles were introduced for the Director General of National Parks and Wildlife (now part of the Office of Environment and Heritage) in various circumstances where threatened

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<sup>123</sup> *Environmental Planning and Assessment Act 1979*(NSW) s 5(a)(vi).

<sup>124</sup> *Environmental Planning and Assessment Act 1979* (NSW) s 5A.

<sup>125</sup> *Environmental Planning and Assessment Act 1979* (NSW) ss 26(1)(e1) and (1A).

<sup>126</sup> *Environmental Planning and Assessment Act 1979* (NSW) s 78A(8)(b).



species is an issue, such as in the preparation of EPIs,<sup>127</sup> and the determination of development applications.<sup>128</sup>

Further substantial reform of the EP&A Act followed soon afterwards with the passage of the *Environmental Planning and Assessment (Amendment) Act 1997*. Commencing on 1 July 1998, this amendment Act instituted a new development assessment regime in NSW, primarily by creating a new Part 4 of the EP&A Act. Three principal areas of reform were implemented, firstly the integration of a range of other statutory approvals with development consent granted under Part 4 of the Act;<sup>129</sup> secondly provision for appropriate assessment of development proposals by creating new categories of exempt, complying, local and state significant development;<sup>130</sup> and thirdly an increased role for the private sector in the development and building assessment processes through the creation of a system of private certification.<sup>131</sup>

Statutory reform in respect to threatened species continued in 2004 with the gazettal of the *Threatened Species Legislation Amendment Act 2004*. This Act altered the operation of the EP&A Act in relation to threatened species requirements by introducing provisions for biodiversity certification of environmental planning instruments. If an EPI is granted biodiversity certification, development in accordance with that planning instrument will generally not require threatened species assessment.

In 2005, the State Government commenced major reforms of the planning process in NSW with the enactment of the *Environmental Planning and Assessment (Infrastructure and Other Planning Reform) Act 2005* (NSW). Although a suite of reforms were contained in the 2005 amendments to the EP&A Act, the most significant from the perspective of this thesis was the creation of a Ministerial power to standardise environmental planning instruments,<sup>132</sup> and the establishment of a new Part 3A of the Act.<sup>133</sup> Subsequently, the Standard Instrument for local environmental

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<sup>127</sup> *Environmental Planning and Assessment Act 1979* (NSW) s 34A(2).

<sup>128</sup> *Environmental Planning and Assessment Act 1979* (NSW) s 79B(3).

<sup>129</sup> *Environmental Planning and Assessment Act 1979* (NSW) s 91.

<sup>130</sup> *Environmental Planning and Assessment Act 1979* (NSW) s 76A.

<sup>131</sup> *Environmental Planning and Assessment Act 1979* (NSW) Part 4B.

<sup>132</sup> *Environmental Planning and Assessment Act 1979* (NSW) s 33A.

<sup>133</sup> *Environmental Planning and Assessment Act 1979* (NSW) Part 3A.



plans (LEPs) was gazetted by the Minister for Planning in 2006, and provides a template for LEPs, mandating the use of standardised zones, definitions and other key provisions.<sup>134</sup> Only LEPs that are consistent with the Standard Instrument are approved by the Minister. Part 3A was inserted to provide a streamlined environmental assessment and approval process for major public and private projects that would previously have been subject to the provisions of Part 4 or Part 5 of the EP&A Act, with the Minister for Planning as the approval authority.<sup>135</sup>

The *Threatened Species Conservation Amendment (Biodiversity Banking) Act 2006* (NSW) which commenced in December 2006 added Part 7A – Biodiversity banking – to the TSC Act. This provided for the establishment of a biodiversity banking and offsets scheme and introduced cognate amendments to Parts 3A, 4 and 5 of the EP&A Act. Part 7A established a procedure under which a person may apply to the Director-General of DECCW for a biobanking statement in respect of a development proposal. If a biobanking statement is issued, it is not necessary for the development to be assessed in accordance with the species protection measures provided for by Parts 4 and 5 of the EP&A Act.<sup>136</sup> Biobanking statements may also be issued in respect of projects proposed under Part 3A of the EP&A Act. However, irrespective of whether or not a biobanking statement under Part 7A was obtained, the Minister may still approve a project subject to a condition that requires the proponent to acquire and retire (in accordance with Part 7A of the TSC Act) biodiversity credits specified by the Minister in the approval.<sup>137</sup>

Additional systemic reform of the statutory framework occurred from 2008 onwards with the gazettal of the *Environmental Planning and Assessment Amendment Act 2008* (NSW). While there were a number of changes introduced to the EP&A Act as result of this amendment Act, the most relevant from the perspective of this thesis included changes to Part 3 in the form of the removal of one layer of EPIs, namely regional

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<sup>134</sup> *Standard Instrument (Local Environmental Plans) Order 2006*.

<sup>135</sup> *Environmental Planning and Assessment Act 1979* (NSW) s 75D.

<sup>136</sup> *Environmental Planning and Assessment Act 1979* (NSW) ss 78A, note; 79B, note; 79C, note; s 111(2)(d); s 111, note; s 112, note.

<sup>137</sup> *Environmental Planning and Assessment Act 1979* (NSW) s 75JA(1).



environmental plans (REPs),<sup>138</sup> from the EP&A Act, and the introduction of the LEP ‘Gateway’ to streamline the LEP-making process.<sup>139</sup> A large number of REPs were repealed and all remaining REPs continued to operate as ‘deemed state environmental planning policies’ (SEPPs). The new LEP-making process involves far greater centralisation of planning power, in the form of a ‘gateway determination’ by the Minister. An upfront determination by the Minister is now required in relation to whether the proposal for an LEP should proceed, the community and government agency consultation requirements, the timeframe for making the LEP and whether a public hearing needs to be held.

Most recently, yet further statutory changes have been made in the area of threatened species with the passage of the *Threatened Species Conservation Amendment (Biodiversity Certification) Act 2010* (NSW). This Act introduced a number of changes to the biodiversity certification regime, including: conferring biodiversity certification on land rather than EPIs;<sup>140</sup> requiring the preparation of a biodiversity certification strategy;<sup>141</sup> providing for the development of a Biodiversity Certification Assessment Methodology;<sup>142</sup> and extending biodiversity certification to include Part 3A projects.<sup>143</sup> Cognate changes were made to the EP&A Act as a consequence of these latest amendments.<sup>144</sup>

Since its commencement in 1980 the EP&A Act has undergone significant reform, in particular with major overhauls undertaken in 1998, 2005 and 2008. The extent to which some of these reforms are consistent with the original aims of the Act has been a matter of debate.<sup>145</sup> Underpinning these reforms are the notions that the planning system is subject to competing demands and that the simultaneous reconciliation of

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<sup>138</sup> *Environmental Planning and Assessment Amendment Act 2008* (NSW), Schedule 1 – Part 3, Division 3 Regional environmental plans – Division omitted.

<sup>139</sup> *Environmental Planning and Assessment Act 1979* (NSW) s 56.

<sup>140</sup> *Threatened Species Conservation Act 1995* (NSW) s 126H.

<sup>141</sup> *Threatened Species Conservation Act 1995* (NSW) s 126K.

<sup>142</sup> *Threatened Species Conservation Act 1995* (NSW) Part 7AA, Division 5.

<sup>143</sup> *Threatened Species Conservation Act 1995* (NSW) s126I(1).

<sup>144</sup> See the *Threatened Species Conservation Amendment (Biodiversity Certification) Act 2010* (NSW), Schedule 2.

<sup>145</sup> See for example: Carr, Y., ‘Does Pt 3A of the Environmental Planning and Assessment Act 1979 (NSW) undermine the objects of that Act?’ (2007) 12 *Local Government Law Journal* 240; Lipman, Z. and Stokes, R., ‘The technocrat is back: Environmental land-use planning reform in New South Wales’ (2008) 25 *Environmental and Planning Law Journal* 305.



potentially contradictory planning aims as expressed in the objects of the EP&A Act is problematic. On the one hand, there is the case for streamlining the planning and development decision making processes to achieve expeditious, efficient and more consistent outcomes. On the other hand however there are equally legitimate claims for thorough environmental assessment, public participation and local involvement in the planning process. Central to the debate, and to the need of trying to achieve a balance between competing planning objectives, is the case for further environmental and natural resource protection in the face of ongoing urban development pressure.

## 5.12 Conclusion

Two plans that offered so much – the *County of Cumberland Plan* and *Cities for the 21<sup>st</sup> Century* – were abandoned. The Cumberland Plan arguably, not because it was a poor plan, but one unsuited for the unforeseen rapid growth Sydney experienced. A British-style greenbelt was fine for a city with low growth, but in a high growth scenario options for urban expansion were required. The greenbelt could have been protected by leapfrogging development over it, akin to the British new towns, but unfortunately the plan never accommodated for this and was abandoned before this option could have been pursued. *Cities for the 21<sup>st</sup> Century* was the first strategic plan for Sydney that sought to implement principles relating to environmental quality, integrated environmental management and ecologically sustainable development. It also contained several relevant strategic principles concerning the establishment and enhancement of green corridors between urban areas; controlling the location and nature of urban expansion to minimise the impacts on environmental quality; containing urban expansion within linear corridors along major transport routes; and controlling the encroachment of development on rural areas so as to protect valuable habitats, agriculture and recreation and tourism resources. Unfortunately, this plan was the victim of political expediency, being replaced by the then incoming State Government's own short-lived metropolitan plan, *Shaping Our Cities*.

Nonetheless, a clear theme that arises from this examination of Sydney's post-war metropolitan plans is that over this time the plans have fundamentally remained the same in terms of seeking to manage for the sustainable growth of Sydney – in other



words nothing has changed, except the words used in the plans. Despite clear legislative intent of greater concern for natural resource conservation, as evident in some of the reforms of the EP&A Act also briefly discussed in this chapter, there has been a breakdown in the manifestation of this concern in both the formulation and implementation of Sydney's planning strategies. The failure of strategic spatial planning at the metropolitan/regional level on a number of counts – but particularly from environmental protection and natural resource conservation perspectives – raises the questions of what is being done, and what can be done, to manage and mitigate the impacts of Sydney's growth? Examined in the next chapter are recent and contemporary institutional or administrative frameworks for managing the peri-urban development of Sydney, and separate attempts – largely unsuccessful – to reform land use planning, integrate natural resource management and land use planning through catchment planning, and to integrate biodiversity conservation with strategic and statutory land use planning.

## Postscript

On 16 December 2010, the Premier released *Metropolitan Plan for Sydney 2036*.<sup>146</sup> Intended to be the foreshadowed five-year update of *City of Cities*, it is a substantial document which, given its length (over 270 pages) belies the claim of being a mere 'update' or review. However, this document has not been included in this discussion for several reasons – it is recent; it does not change radically the growth for Sydney planned under *City of Cities*; and it may not be supported by the incoming State Government and so, like the past four metropolitan plans for Sydney, may have a short life expectancy.

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<sup>146</sup> NSW Department of Planning *Metropolitan Plan for Sydney 2036*, (Sydney, DoP, 2010), <http://www.planning.nsw.gov.au/StrategicPlanning/MetropolitanPlanforSydney2036/tabid/487/language/en-US/Default.aspx>, viewed 28 April 2011.



# 6

## MANAGING THE SYDNEY FRINGE – REFORM OF THE PLANNING AND NATURAL RESOURCE MANAGEMENT SYSTEMS

### 6.1 Introduction

As described in the previous chapter Sydney has, since the 1950s, been the ongoing recipient – though arguably not the beneficiary – of firstly ‘town’ and subsequently ‘environmental’ planning. The latest metropolitan plan that continues this heritage of strategic spatial planning for the Sydney Region is *City of Cities – A Plan for Sydney’s Future*, released by the Department of Planning in December 2005. Simultaneously with such strategic and policy initiatives, planning and natural resource management in NSW has, over the past ten years or so, also been subject to an ongoing reform process. While the reform has been mainly statutory – and hence largely regulatory – in nature, it has also had implications for the organizational and administrative responsibilities for land use planning and natural resource management in Sydney. Here, a paradox is apparent. The rationale for reform has been the need for greater strategic and policy integration and removal of regulatory and institutional fragmentation. Yet the culmination of this reform process has, arguably, been even greater bifurcation of planning and natural resource management and administration in NSW. A central premise of this chapter is that the fragmentation of natural resource policy and responsibility for its implementation is a critical factor hindering better natural resource outcomes.<sup>1</sup> Further, attempts in recent years at statutory or

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<sup>1</sup> Morrison, T., McDonald, G. and Lane, M., ‘Integrating Natural Resource Management for Better Environmental Outcomes’ (2004) 35(3) *Australian Geographer*, 243.



legislative integration in order to overcome this fragmentation have, as highlighted in this chapter, generally met with failure.

In this context of failure of statutory reform in NSW, the chapter identifies three themes pertaining to separate attempts over the past decade in relation to integration of the legislative framework governing planning and natural resources. The first theme is the *PlanFirst* reform,<sup>2</sup> a failed attempt to establish a statutory local plan for each local council in NSW that integrated the three areas of land use planning with natural resource management and environmental protection. As such, *PlanFirst* represented a bold attempt to integrate at the statutory level three disparate areas within a single plan based under the primary planning legislation, the *Environmental Planning and Assessment Act 1979* (the 'EP&A Act'). The second theme concerns attempts to integrate catchment management and land use planning through legislative and regulatory means, but noticeably has also involved the creation, initially, of catchment management committees and trusts (discussed in Chapter 4), and more recently, catchment management authorities (as well as the Sydney Catchment Management Authority, to be discussed in the next chapter). To some degree, this integration of the land use planning system with the catchment management system has been successful. The third theme involves the more recent effort to integrate land use planning with biodiversity conservation. Specifically, this approach, which has largely been legislative in focus, seeks to integrate the land use planning and biodiversity conservation systems through mechanisms such as the biodiversity certification of environmental planning instruments and land, and the State Biobanking and Offsets Scheme. Recent evidence suggests that this attempt at systemic integration is faltering.

The primary focus of this chapter is the coalescence of these three themes of legislative reform, examining their history, failures and success in the context of managing the impacts Sydney's growth. An analysis of legislative reform cannot be divorced however from the institutional framework in which these reform initiatives have taken place. By necessity therefore, as an important contextual element this

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<sup>2</sup> Department of Urban Affairs and Planning, *PlanFirst: Review of plan making in New South Wales*, (Sydney, DUAP, March 2001).



chapter begins with a review of the unsettled, shifting land use planning and management responsibilities of different government agencies, as the recent history of incessant organisational restructuring has presented its own challenge in terms of coordinating and integrating government activity in this field. Indeed, NSW has failed in a fourth area of reform – that of trying to achieve institutional or structural integration across its land use planning and natural resource management systems.<sup>3</sup>

Thus, this chapter seeks to demonstrate that the general failure to implement statutory reform designed to achieve integration between the land use planning, catchment management and biodiversity conservation systems, is a key contributor to the ineffectual management of the natural resource impacts of Sydney's growth. In the face of this recent history of reform failure, the task of ensuring that Sydney's future growth maintains its natural resource base assumes increasing difficulty. Arguably, urban growth management in Sydney may no longer be merely a challenge of weighing up and balancing competing factors, but has become an intractable issue in which there will be inevitable losers – biodiversity loss, declining environmental quality and agricultural resource depletion – and, ultimately, reduction of amenity or quality of life in Sydney.

In undertaking this review and critique of managing the Sydney fringe from the perspective of recent reforms of the land use planning and natural resource management systems, this chapter also begins to draw on the opinions and comments expressed by some of the State and local government experts interviewed as part of the research for this thesis. Fuller utilisation of this primary information source is made in Chapters 7 and 8 where, respectively, State and local government growth management examples and case studies are considered in more detail.

## **6.2 The Sydney Region – Who is responsible? The failure of institutional and policy reform**

Disparate, disconnected efforts towards a more integrated strategic approach to land use and natural resource management have been attempted in NSW. Two forms of

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<sup>3</sup> Mant, J., 'Place management as a core role in government' (2008) 1(1) *Journal of Place Management and Development*, 100.



integration may be identified.<sup>4</sup> The first is institutional or structural integration, and involves either the formation of a single or at least 'lead' agency, or leaving existing institutions intact but implementing better administrative coordination between agencies. The second form of integration is legislative, and may involve either regulatory and/or strategic integration through statutory reform. This section deals with the first form of integration – institutional or structural integration – whilst the remaining sections of the chapter is concerned with three separate attempts at legislative reform – in the fields of land use planning, catchment management, and biodiversity planning.

As regional planning is a State Government responsibility and so is undertaken across NSW, any consideration of planning initiatives at a regional scale primarily involves state agencies and unavoidably extends in many instances beyond the confines of Sydney. Even bioregional approaches such as catchment management extend beyond the confines of metropolitan Sydney, as the city's catchments extend into the surrounding countryside. Relevant State Government policies and strategies, and the organisations that implement them, are considered here because of their contribution to managing the natural resource and environmental impacts of urbanisation across the state.

Creation of the former Department of Infrastructure, Planning and Natural Resources (DIPNR) in 2003 arose from the recognition of the need to combine institutional integration with attempts to achieve integration between the regulatory and procedural level of development control on the one hand and forward or strategic planning and management on the other. DIPNR, and thence the Department of Planning and former Department of Natural Resources (whose functions have been split across several agencies) were the main State agencies responsible for such integration efforts.<sup>5</sup> In more recent times both the National Parks and Wildlife Service (NPWS) and the Environment Protection Authority (EPA) – now part of the Department of Environment, Climate Change and Water (DECCW) – the former departments of

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<sup>4</sup> Mant, J., 'Putting place outcomes at the centre of planning law and administration' (2000) 37(2) *Australian Planner*, 59.

<sup>5</sup> Williams, P., 'The future of natural resource management – Implications for the education and role of planners', paper presented at the *Young Planners Forum 2004*, (Faculty of the Built Environment, University of New South Wales, 1 October 2004).



Water and Energy (DWE) and Primary Industries (DPI) had also taken a more prominent role in land use planning and resource management. Further analysis of the roles of these agencies is provided below. Sitting above all these agencies is the lead role taken by the Department of Premier and Cabinet and NSW Treasury determining policy direction in the state, which became more evident through the inauguration in 2006 of a State Plan.

### 6.2.1 The State Plan

In recent years the overarching broad policy framework for government in NSW has been provided by the 2006 State Plan,<sup>6</sup> and subsequently the more contemporaneous 2009 State Plan.<sup>7</sup> The 2006 State Plan assayed five areas of activity of the NSW Government, with one of these – ‘Environment for Living’ – being particularly pertinent to this thesis. This area of activity consisted of three goals, each of which was in turn divided into several priorities described by an alpha-numeric identifier. Specifically two of these goals are relevant here – ‘Securing Our Supply of Water and Energy’ (which includes Priority E1: A secure and sustainable water supply for all users) and ‘Practical Environmental Solutions’ (which includes Priority E4: Better environmental outcomes for native vegetation, biodiversity, land, rivers and coastal waterways). To help ensure the realization of priorities, a number of measurable targets were assigned – for example 13 targets were identified for Priority E4.<sup>8</sup> The State Plan sought to achieve its goals and priorities by linking these to other Government decisions, actions and plans in different policy fields. These policy fields included climate change (through the *NSW Greenhouse Plan*), water (the 2006

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<sup>6</sup> NSW Government, *State Plan – A new direction for NSW*, (Sydney, Premier’s Department, November 2006).

<sup>7</sup> NSW Government, *Investing in a Better Future – NSW State Plan*, (Sydney, Department of Premier and Cabinet, October 2009), <http://www.stateplan.nsw.gov.au>, viewed 8 January 2010.

<sup>8</sup> The overall target for Priority E4: Better outcomes for native vegetation, biodiversity, land, rivers and coastal waterways, is to “Meet the NSW Government’s state-wide targets for natural resource management”. This overall target is in turn expressed as 13 measurable targets classified under the headings of biodiversity, water, land, and community. For example, Target 1 relates to biodiversity – “By 2015 there is an increase in native vegetation extent and an improvement in native vegetation condition”; Target 5, water – “By 2015 there is an improvement in the condition of riverine ecosystems; Target 10, land – “By 2015 there is an improvement in soil condition; Target 13, community – “There is an increase in the capacity of natural resource managers to contribute to regionally relevant natural resource management.” Measuring progress in meeting these State-wide standards and targets was assigned to the Natural Resources Commission, whilst the current status of environmental protection and natural resource management in NSW was to be reported in each *State of the Environment Report*.



*Metropolitan Water Plan*), air (*Action for Air: 2006 Update*) and city planning (*City of Cities – A Plan for Sydney’s Future*). As a rule, most government policy announcements, programs and other initiatives were related back to relevant State Plan priorities in order to demonstrate consistency and structure across Government action. Examples of NSW natural resource and environmental programs linked into the State Plan include the NSW Biobanking Scheme,<sup>9</sup> and catchment action plans.<sup>10</sup>

Progress in achieving the 2006 State Plan targets for each of its priorities was reported in 2008.<sup>11</sup> Towards the end of 2009 the NSW Government released a new State Plan.<sup>12</sup> The 2009 State Plan does not appear to differ substantively from the 2006 Plan, though it is somewhat less detailed than the earlier Plan. For example, while Priority E4 (Better environmental outcomes for native vegetation, biodiversity, land, rivers and coastal waterways) from the 2006 State Plan is retained in the 2009 Plan in the form of a new priority termed “Protect our native vegetation, biodiversity, land, rivers and coastal waterways”, the 13 specific, measurable targets for Priority E4 have been replaced by a more generic single ‘target’ – “Meet our State-wide targets for natural resource management to improve biodiversity and native vegetation, sensitive riverine and coastal ecosystem, soil condition and socio-economic well-being.”<sup>13</sup> A further point of distinction is that, whereas the 2006 State Plan set a time frame of 2015 to meet its targets for Priority E4, the 2009 State Plan only indicates what the Government will do “over the next two years.”<sup>14</sup> A performance report on progress

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<sup>9</sup> The NSW Biobanking Scheme, which commenced operation on 1 July 2008, was seen as implementing the State Government’s commitment to Priority E4 (“Better environmental outcomes for native vegetation, biodiversity, land rivers and coastal waterways”) of the 2006 State Plan – see NSW Government, *State Plan – A New Direction for NSW, 2008 Annual Report*, (Sydney, NSW Government, 2008), <http://www.stateplan.nsw.gov.au>, viewed 8 January 2010.

<sup>10</sup> Catchment action plans (CAPs) have a key role in addressing the priorities in the State Plan, as stated in the current Hawkesbury-Nepean Catchment Action Plan: “The State Plan Priority E4 identifies targets which will guide the implementation of the CAPs to ensure better outcomes for native vegetation, biodiversity, land, rivers and coastal waterways.” (Hawkesbury-Nepean Catchment Management Authority, *Hawkesbury-Nepean Catchment Action Plan 2007-2016*, (Goulburn, HNCMA, 2008), p.iii, <http://www.hn.cma.nsw.gov.au/multiversions/3081/FileName/CAP39-50.pdf>; viewed 2 October 2010).

<sup>11</sup> NSW Government, *State Plan – A New Direction for NSW, 2008 Annual Report*, (Sydney, NSW Government, 2008), available at: <http://www.stateplan.nsw.gov.au>, viewed 8 January 2010.

<sup>12</sup> NSW Government, above n 7.

<sup>13</sup> Ibid, p 37.

<sup>14</sup> Ibid, p 40.



toward achieving the 2009 State Plan was released in 2010.<sup>15</sup> In terms of meeting the 2015 targets for natural resource management, worryingly the 2010 performance report indicated that achievement of none of the 2015 targets were on track. While many of these targets could still possibly be met by 2015, significantly the report suggested that key targets of the number of sustainable populations of native fauna, recovery of threatened species and ecological communities, invasive species status, conditions of riverine ecosystems, and condition and extent of important wetlands, would not be met.<sup>16</sup>

### **6.2.2 Administrative responsibilities**

Generally, calls in NSW to institute a system where a single administrative entity has responsibility for managing a geographic area, whether a bioregion, catchment, locality or place – in other words a place-based approach or place management – have not been well-received because of opposition from various government agencies each seeking to protect their own administrative responsibilities.<sup>17</sup> For example, in the context of the governance of Sydney Harbour, where there are many governmental bodies involved with few institutional modes of coordination, a position of ‘Sydney Harbour Manager’ was created in 1998 as a three-year trial, with no powers to direct but much scope to seek cooperation. The purpose of this position was the establishment of a pattern of management of Sydney Harbour through networks, developed through a process of identifying, incorporating and coordinating all stakeholders. Officially, the position was not renewed as it was perceived by State Government to have achieved its purpose. In reality however, collaboration and coordination through network building by the Sydney Harbour Manager had become almost impossible “in late 2000 when the Minister for Land and Water Conservation appointed a Sydney Harbour Catchment Management Board of 20 people from

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<sup>15</sup> NSW Government, *NSW State Plan: Annual Performance Report 2010*, (Sydney, NSW Government, 2010), [http://www.nsw.gov.au/sites/default/files/pdfs/stateplan/Performance%20Report%202010\\_Green%20State.pdf](http://www.nsw.gov.au/sites/default/files/pdfs/stateplan/Performance%20Report%202010_Green%20State.pdf), viewed 24 July 2010.

<sup>16</sup> Ibid, p 4.

<sup>17</sup> The leading advocate for a place-based approach to land use planning and planning organizational structures is Sydney lawyer and planner John Mant; see for example, Mant, J., ‘Place management as a core role in government’, (2008) 1(1) *Journal of Place Management and Development*, 100.



diverse and conflicting interests who were expected to submerge their differences in a consensual planning document.”<sup>18</sup>

The State planning agency at that time, the Department of Urban Affairs and Planning (DUAP), confined itself to ‘traditional’ land use planning issues, with matters of natural resource management and environmental protection residing largely with other agencies such as the Department of Land and Water Conservation (DLWC), the National Parks and Wildlife Service (NPWS) and the Environment Protection Authority (EPA). In the years since 2000 however, continuous reconfiguring of administrative responsibilities has taken place, which has not been conducive to the establishment and maintenance of a stable bureaucratic environment for overseeing land use planning and natural resource management.

In 2001 DUAP changed its name to Planning NSW, although its basic functions remained intact. Significant institutional reform occurred in April 2003 however, with the creation of the Department of Infrastructure, Planning and Natural Resources (DIPNR). This ‘super-agency’ brought together the land use planning and development control functions of Planning NSW, the core natural resource management functions of DLWC, as well as the strategic planning responsibilities from the Department of Transport and the Infrastructure Coordination Unit of the Premier’s Department. DIPNR’s role was wide-ranging, with its responsibilities covering the statutory land use planning system and development assessment; strategic (metropolitan and regional) land use and infrastructure planning; landscape management; and water management.<sup>19</sup> Thus, the creation of DIPNR sought to overcome the fragmentation of land use planning and natural resource management within the State bureaucracy that has been the norm in NSW. Similar integration was also sought through the amalgamation of various State environmental agencies to

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<sup>18</sup> Dawkins, J. and Colebatch, H. ‘Governing through institutionalized networks: the governance of Sydney Harbour’ (2006) 23 *Land Use Policy*, 333at 337.

<sup>19</sup> Department of Infrastructure, Planning and Natural Resources, *Annual Report 2004-2005*, (Sydney, DIPNR, 2005), p 6.



form the Department of Environment and Conservation (DEC) in September 2003,<sup>20</sup> and the Department of Energy, Utilities and Sustainability (DEUS) in January 2004.<sup>21</sup>

In August 2005 however, the State Government decided to split DIPNR into the Department of Planning and the Department of Natural Resources (DNR), with some functions also transferred to the Premier's Department, the Cabinet Office, the Ministry of Transport and the Department of Energy, Utilities and Sustainability.<sup>22</sup> On a broader contextual level, this reorganisation was consistent with the revolutionary paradigm shift witnessed in different countries and Australian States of *reinventing government* organisations which, it was argued, had progressively failed to deliver basic services in an efficient, democratically responsive fashion.<sup>23</sup> This paradigm shift sees institutions and institutional change as significant in the development and performance of economies.<sup>24</sup> Thus, the Department of Planning largely retained the rump of land use planning functions of the former Planning NSW and DUAP – i.e. the 'basic services' of strategic planning and development assessment. Functions reverting to the DNR included management of water resources, native vegetation and soils, as well as coastal and floodplain management and responsibility for the State's 13 catchment management authorities (CMAs). DNR supported the CMAs for example, in the preparation of Property Vegetation Plans (PVPs) under the *Native Vegetation Act 2003*, which set out how landowners will manage their native vegetation over a period of up to 15 years.<sup>25</sup>

However, DNR was to survive for less than two years. In April 2007, two new NSW government departments were formed – Department of Water and Energy (DWE) and the Department of Environment and Climate Change (DECC). Further, responsibility for the management of the natural resources of agriculture, fishing and aquaculture,

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<sup>20</sup> The NSW Department of Environment and Conservation brought four agencies into a single department: Environment Protection Authority, National Parks and Wildlife Service, Resource NSW, and the Botanic Gardens Trust. It also had links with the Sydney Catchment Authority.

<sup>21</sup> The NSW Department of Energy, Utilities and Sustainability incorporates agencies such as Sydney Water, Hunter Water, State Water, and the former Sustainable Energy Development Authority.

<sup>22</sup> Department of Infrastructure, Planning and Natural Resources, above n 19, p 2.

<sup>23</sup> The term 'reinventing government' is utilised by Osborne and Gaebler – see: Osborne, D. and Gaebler, T., *Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Sector*, (Addison-Wesley, Reading: Mass., 1992).

<sup>24</sup> North, D., *Institutional Change and Economic Performance*, (Cambridge University Press, New York, 1990).

<sup>25</sup> *Native Vegetation Act 2003* (NSW), Part 4.



forests, and minerals and petroleum were transferred to the Department of Primary Industries (DPI). This jurisdictional arrangement also did not last long.

In July 2009 the NSW government established the Department of Environment, Climate Change and Water (DECCW), and Industry and Investment NSW. The Department of Water and Energy (DWE) was abolished, with its water management responsibilities transferred to DECCW and its energy responsibilities consigned to Industry and Investment NSW (which also includes the former departments of Primary Industries, and State and Regional Development).<sup>26</sup> Under this Departmental arrangement, DECCW reports to two Ministers: the Minister for Climate Change and the Environment, and the Minister for Water. Described as “one of the agencies that form the new Environment, Climate Change and Water super agency cluster”,<sup>27</sup> along with the Sydney Catchment Authority, the catchment management authorities (which are separate statutory authorities), and several other agencies, DECCW incorporates the former National Parks and Wildlife Service, and has the statutory powers of the former Environment Protection Authority. DECCW has wide-ranging responsibilities which include: sustainability programs, including environmental education, energy efficiency and water conservation programs and renewable energy policy; policy and regulation for air and water quality; management of national parks and reserves, and marine parks; biodiversity, threatened species and native vegetation policy and programs; protection of soils and land policies for catchment management; environmental water management and coastal lakes and estuaries; and reliable water supply for critical human and industry needs and the secure and sustainable allocation of water between communities, industry, farmers and the environment.<sup>28</sup>

Arguably, nowhere is this institutional diaspora of natural resource management in NSW more evident than in the case of catchment management. The *Catchment Management Act 1989* (‘CM Act’) provided for a network of Catchment Management Committees (CMCs) and Trusts (CMTs) which primarily fell under the portfolio of

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<sup>26</sup> See: Department of Water and Energy, *NSW Government reform*, (Sydney, DWE, 2010), <http://www.dwe.nsw.gov.au/home/>, viewed 24 July 2010; Industry and Investment NSW website, available at: <http://www.industry.nsw.gov.au/>, viewed 24 July 2010.

<sup>27</sup> Department of Environment, Climate Change and Water website: <http://www.environment.nsw.gov/aboutdecc.htm>, viewed 9 January 2010.

<sup>28</sup> Department of Environment, Climate Change and Water website: <http://www.environment.nsw.gov/aboutdecc.htm>, viewed 9 January 2010.



the Minister for Land and Water Conservation and hence were the responsibility of the Department of Land and Water Conservation (DLWC).<sup>29</sup> With the formation of DIPNR in April 2003, this new organisation assumed responsibility for catchment management from DLWC. The demise of DIPNR in August 2005 saw catchment management transferred to DNR. From April 2007 with the disestablishment of DNR, catchment management became the responsibility of DECC, and thence since July 2009, the present DECCW.

Yet NSW is not alone in engaging in frequent administrative restructuring. Governments across Australia regularly restructure departments in the natural resource management and environmental protection arena, sometimes for the purpose of improved policy integration, but frequently to meet ministerial and bureaucratic aspirations. Often such formal efforts for integration fall short of guaranteeing that integration occurs.<sup>30</sup> What appears to have happened in NSW however is that the constant reallocation of administrative responsibilities among different bureaucratic units has undermined the fruition of an integrated system of land use and natural resource management that the attempts of organisational and statutory reform has striven to achieve.

### **6.2.3 The Natural Resources Commission**

A significant attempt by the State Government to reform natural resource management in NSW occurred in 2003 with the implementation of recommendations of the Final Report of the Native Vegetation Reform Implementation Group (the ‘Sinclair Report’).<sup>31</sup> Arguably prior to this “there was little co-ordination between the management of native vegetation, threatened species, catchments and water, and the reforms have brought about a far greater integration of natural resource management

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<sup>29</sup> Under the *Catchment Management Act 1989* (CMA) committees and trusts for specified areas could be set up by responsible ministers. The Minister for Land and Water Conservation, as the minister administering the Act, was responsible for rural areas (CMA s.6). The Minister for Land and Water Conservation and the Minister for the Environment were technically responsible for urban areas (Schedule 2), although in practice the day-to-day management was by the Minister for Land and Water Conservation.

<sup>30</sup> Morrison *et al*, above n 1, p 244.

<sup>31</sup> Department of Infrastructure, Planning and Natural Resources, *Native Vegetation Reform Implementation Group, Final Report*, (Sydney, DIPNR, October 2003).



(NRM).<sup>32</sup> Amongst the recommendations adopted by the State Government were the establishment of an independent Natural Resources Commission and catchment management authorities (CMAs), which are now the two principal State bodies vested with the responsibility of achieving NRM.<sup>33</sup> The functions of the NRC are described briefly here, and those of the CMAs later in this chapter.

The Natural Resources Commission was established under the *Natural Resources Commission Act 2003* which commenced in January 2004. It consists of a full-time commissioner and assistant commissioners, and reports to the Premier. The NRC has responsibility for providing the State Government with independent advice on NRM. The functions of the Commission include:<sup>34</sup>

- recommending State-wide standards and targets for natural resource management issues;
- recommending the approval (under the *Catchment Management Authorities Act 2003*) of catchment action plans of CMAs that are consistent with State-wide standards and targets adopted by the Government for natural resource management issues;
- undertaking audits of the effectiveness of the implementation of those plans in achieving compliance with those State-wide standards and targets;
- co-ordinating or undertaking audits of those plans and other natural resource management issues, significant natural resource and conservation assessments, and inquiries on natural resource management issues, as required by the Minister;
- arranging for information to be gathered and disseminated on natural resource management issues.

The key responsibilities of the NRC can be summarised as establishing a sound scientific basis for managing natural resources in NSW, and facilitating the adoption of state-wide standards and targets for NRM issues. In this regard the Commission is required to report to the minister on any audits or inquiries, and progress in achieving state-wide standards and targets adopted by the Government, including the effectiveness of the implementation of catchment action plans in achieving compliance with those standards and targets.<sup>35</sup> To fulfil this responsibility assigned to

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<sup>32</sup> Lyster, R., Lipman, Z., Franklin, N., Wiffen, G. and Pearson, L., *Environmental & Planning Law in New South Wales*, 2<sup>nd</sup> edn., (Sydney, The Federation Press, 2009), pp 331-332.

<sup>33</sup> Ibid, p 332.

<sup>34</sup> *Natural Resource Commission Act 2003*, s.13.

<sup>35</sup> *Natural Resources Commission Act 2003*, s.15.



the NRC under the *Natural Resources Commission Act 2003*, in September 2005 it prepared the *Standard for Quality Natural Resource Management* for adoption by the State Government.<sup>36</sup> The Standard is designed to apply to NRM at all scales including at the state, regional or catchment, local and property levels. Specifically, the development and implementation of catchment action plans (CAPs) by CMAs must comply with the Standard under s.13(c) and (d) of the *Natural Resources Commission Act 2003* and s.20(2)(c) of the *Catchment Management Authorities Act 2003*. To this end the NRC has, since 2007, conducted formal implementation audits of CAPs to assess their compliance with the Standard,<sup>37</sup> and since 2006 has prepared general reports on CAPs, standards and targets.<sup>38</sup>

### **6.3 Land use planning reform – *PlanFirst* and its aftermath**

Land use planning reform efforts in NSW have generally been at the more reactive regulatory and procedural level of development control, rather than seeking integration at the stage of forward or strategic planning and management. Failure to achieve integration on both fronts has led to a fragmented policy and regulatory framework not just with respect to land use planning but also with natural resource management in NSW. Arguably the root of the problem has been the inability of the land use planning system to achieve its full potential in terms of the broader scope accorded it with the passing of the EP&A Act in 1979. For example statutory plans – termed environmental planning instruments under the Act – can be made so as to address any of the objects of the Act, which are defined quite broadly. Pertinent objects include “the proper management, development and conservation of natural and artificial resources,”<sup>39</sup> and the “protection of the environment”,<sup>40</sup> defined to

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<sup>36</sup> Natural Resources Commission, *Standard for Quality Natural Resource Management*, (Sydney, NRC, September 2005), <http://www.nrc.nsw.gov.au/content/documents/Standard%20for%20quality%20NRM.pdf>; viewed: 26 December 2010.

<sup>37</sup> See: Natural Resources Commission, Publications: *Catchment action plan implementation audits*, <http://www.nrc.nsw.gov.au/Publications.aspx>; viewed 26 December 2010.

<sup>38</sup> See: Natural Resources Commission, Publications: *Progress reports – catchment action plans, standards and targets*, <http://www.nrc.nsw.gov.au/Publications.aspx>, viewed 26 December 2010.

<sup>39</sup> *Environmental Planning and Assessment Act 1979*, s.5(a)(1)

<sup>40</sup> *Environmental Planning and Assessment Act 1979*, s.5(a)(vi)



include “all aspects of the surroundings of humans.”<sup>41</sup> While environmental planning instruments can “control”, they may also include provisions to “protect”, “improve” or “conserve”.<sup>42</sup> Frustratingly, therefore, the failure to effectively integrate land use planning, environmental protection and natural resource management therefore does not appear to have been due to any innate deficiencies of the EP&A Act, but rather reflects the lack of initiative in its administration and implementation at State Government level.

### 6.3.1 The *PlanFirst* White Paper

The need for integration of land use planning and natural resource management at a strategic, as well as at a development control level, was recognised by DUAP in its discussion paper on reform of Part 3 of the *Environmental Planning and Assessment Act 1979* (‘EP&A Act’), *Plan making in NSW*.<sup>43</sup> Part 3 (titled ‘Environmental Planning Instruments’) contained, until July 2009, three types of environmental planning instruments (EPIs) – state environmental planning policies (SEPPs), regional environmental plans (REPs) and local environmental plans (LEPs).<sup>44</sup> The discussion paper contained a sobering six-page table which outlined “some of the major policy and planning instruments that occur *outside* [emphasis added] the EP&A Act, but which clearly have subject matter that is relevant to the planning process.”<sup>45</sup> A regime for better integration of strategic or forward planning and the statutory and non-statutory plans relating to land use planning, natural resource management and environmental protection at the state, regional and local levels was subsequently proposed in the *PlanFirst* white paper.<sup>46</sup>

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<sup>41</sup> *Environmental Planning and Assessment Act 1979*, s.4.

<sup>42</sup> *Environmental Planning and Assessment Act 1979*, s.26.

<sup>43</sup> Department of Urban Affairs and Planning, *Plan making in NSW: Opportunities for the future – discussion paper*, (Sydney, DUAP, February 1999).

<sup>44</sup> At its inception, three different types of environmental planning instruments existed under the *Environmental Planning and Assessment Act*, 1979 (vide Part 3 – ‘Environmental Planning Instruments’). These were state environmental planning policies (SEPPs), regional environmental plans (REPs) and local environmental plans (LEPs). However, in July 2009 the NSW Department of Planning abolished REPs by repealing Part 3 Division 3 of the EP&A Act. A number of REPs were abolished, and those remaining were deemed to be state environmental planning policies (SEPPs) – so while retaining the title of ‘REP’ now have the status of a ‘SEPP’. To avoid confusion, the term ‘REP’ is used here when referring to REPs that have not been repealed and which continue to operate (albeit as SEPPs).

<sup>45</sup> Department of Urban Affairs and Planning, above n 43, p 8.

<sup>46</sup> Department of Urban Affairs and Planning, above n 2.



Therefore worryingly – from an integrated planning system perspective – efforts to advance the cause of strategic planning of natural resources have occurred outside the framework of the land use planning system and jurisdictionally, outside or on the fringes of the EP&A Act. Initially these included plans such as regional vegetation management plans under the NVC Act, protection of the environment policies under the *Protection of the Environment (Operations) Act* 1997, and water sharing plans under the *Water Management Act* 2000. In essence, one of the laudable aims of *PlanFirst* was to bring such plans relating to the natural environment under a broader, integrated set of state, regional and local plans within the framework of the EP&A Act.<sup>47</sup> Where the *PlanFirst* reform process particularly met problems was opposition within the State bureaucracy to the notion that administrative control of plans would become the responsibility of the then Department of Urban Affairs and Planning, as well as jurisdictional control to fall under the EP&A Act.<sup>48</sup> It is in this context of removing bureaucratic silos of self-interest, rather than being convinced of the administrative and planning output logic of organisational integration, that the decision of the State government in mid-2003 to form the new Department of Infrastructure, Planning and Natural Resources might be read.

### **6.3.2 The *PlanFirst* Review Task Force**

One of the objectives of the proposed *PlanFirst* reform was to ensure greater consistency within and between numerous environmental legislation by concentrating various land use planning, environmental protection and natural resource management provisions into a single integrated local plan for each local council.<sup>49</sup> However this attempt at integrated strategic land use and natural resource planning, and many other of the *PlanFirst* proposals were abandoned following the implementation of the advice from the *PlanFirst* Review Taskforce, which reported to the Minister for Planning in September 2003. The Taskforce believed that “the original intention for local plans as proposed under *PlanFirst*, far exceeded the role than an environmental

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<sup>47</sup> Vipond, J., ‘Regional Planning in NSW’, (2001) 38(3/4) *Australian Planner* 121.

<sup>48</sup> Williams, P., above n 5.

<sup>49</sup> Department of Urban Affairs and Planning, above n 2.



planning instrument should and could have within the system of local government.”<sup>50</sup> As a consequence, a more narrowly focused and standardized local statutory plan that relied on traditional land use zoning was advocated by the Taskforce. This recommendation was implemented in the 2005 reforms to the EP&A Act,<sup>51</sup> which established the statutory basis for the proclamation of a template for a uniform local planning instrument – the ‘Standard LEP’<sup>52</sup> – the natural resource and growth management implications of which are discussed in more detail in the following chapters.

Conversely, the *PlanFirst* Review Taskforce acknowledged that the regional planning system in NSW was in need of overhaul, and so it supported the principles of *PlanFirst* that placed greater emphasis on the importance of regional planning. Perceived as critical to regional planning was the role of DIPNR, which included: linking together planning and management processes relevant to a region such as catchment planning, transport and infrastructure planning, and social and economic development planning; reconciliation of catchment and natural resource planning approaches and their easy translation into the local land use planning system; and developing “a broad strategic land use/environmental planning context for regions including the regional objectives, or intended outcomes, of State agencies.”<sup>53</sup>

In brief, the *PlanFirst* Taskforce recommended to the Minister that the number of, and reliance on SEPPs and REPs be reduced, that LEPs focus mainly only on statutory land use control through zoning, and that regional planning take place through non-statutory regional strategies.<sup>54</sup> Coordination of the preparation of whole-of-government regional strategies in important growth areas was subsequently given higher priority by DIPNR. Regional strategies were to be utilised to identify settlement patterns; major land release areas; infrastructure and transport priorities; infrastructure costs; budgets and financing arrangements; appropriate sites for development; locations for economic development and jobs; and high conservation

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<sup>50</sup> Department of Infrastructure, Planning and Natural Resources, *Planning System Improvements – Report by the PlanFirst Review Taskforce to the Minister for Infrastructure and Planning and Minister for Natural Resources*, (Sydney, DIPNR, Sydney September 2003), p 19.

<sup>51</sup> *Environmental Planning and Assessment Act 1979*, s 33A

<sup>52</sup> *Standard Instrument (Local Environmental Plans) Order 2006*.

<sup>53</sup> Department of Infrastructure, Planning and Natural Resources, above n 50, p 12.

<sup>54</sup> *Ibid*.



areas. Unlike the prior REPs, which often contained detailed development controls, the new regional strategies were not to be legal instruments.

The areas identified as priorities for regional strategies were the Sydney metropolitan region, the NSW coast, the Sydney to Canberra corridor, and key growth centres in Western NSW.<sup>55</sup> Coinciding with the release of the current Metropolitan Strategy for Sydney and its subsequent implementation through 10 constituent subregional strategies for the Sydney Region, the Department of Planning began the task of preparing a number of regional strategies for the rest of the State. Whether these subregional and regional strategies represent an integrated whole-of-government approach to natural resource, environmental and land use planning is debatable, given the subsequent splintering of DIPNR into separate land use planning and natural resource agencies (the Departments of Planning and Natural Resources respectively), and thence the injudicious demise of DNR shortly afterwards.

### **6.3.3 The abandonment of *PlanFirst***

The demise of *Plan First* has meant that the scope for integration at the strategic level has been compromised and inconsistency across environmental legislation remains a problem. State Government natural resource and planning reforms since *PlanFirst* have done little to rectify the legislative and administrative vacuum that exists between the land use planning and natural resource management systems. Natural resource management is being largely conducted through *catchment action plans* (CAPs) prepared for each catchment-based region.<sup>56</sup> Arguably however, catchment action plans focus on providing funding and incentives to ameliorate the impacts of existing and proposed land use, rather than being strategic documents concerned with, for example, developing guidelines to prevent inappropriate development in the future. Further, a CAP must have regard to any environmental planning instrument that applies to the land, whereas by comparison LEPs, for example, rarely have to consider other natural resource management plans. The most recent land use planning reforms in the form of reliance on subregional and regional strategies which have

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<sup>55</sup> Department of Infrastructure, Planning and Natural Resources, *Improving the NSW planning system*, (Sydney, DIPNR, September 2004).

<sup>56</sup> *Catchment Management Authorities Act*, s 19.



been devised by the Department of Planning in isolation from catchment action plans, further “highlights the separation between land use planning decisions and natural resource management decisions.”<sup>57</sup>

Compounding these events is the successive migration of CMAs – which now have extensive natural resource management roles within their catchments – from DIPNR to DNR to DECC and thence to DECCW, and the apparent lack of administrative or legislative links between CMA-produced CAPs and strategic plans (regional and subregional strategies) produced by the Department of Planning and EPIs under the EP&A Act.

## 6.4 Catchment management reform

Several key recommendations of the 2003 review of natural resource management in NSW by the Native Vegetation Reform Implementation Group (the ‘Sinclair Report’) concerned the establishment and role of CMAs.<sup>58</sup> As part of its adoption of this review the State Government enacted the *Catchment Management Authorities Act 2003* (‘CMA Act’). Catchment management in the Sydney Region had experienced a pattern of administrative instability and fragmentation similar to the rest of NSW. Originally several catchment management committees (CMCs) and two catchment management trusts (CMTs – the Hawkesbury-Nepean Catchment Trust and the Upper Parramatta River Catchment Trust) operated in the Sydney Region under the CM Act. Just prior to the State Government’s 2003 natural resource reforms, this situation had changed so that several newly constituted catchment management boards (CMBs) and the Hawkesbury-Nepean Local Government Advisory Group exercised catchment management responsibilities in the Sydney Region. In 2003 these bodies were replaced by the CMAs. Independently of these reforms, the Sydney Catchment Authority had been established in 1999 (discussed further in Chapter 7).

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<sup>57</sup> Farrier, D. and Stein, P. (eds.), *The Environmental Law Handbook*, (4<sup>th</sup> edn., Redfern, Redfern Legal Centre Publishing, 2006), p 549.

<sup>58</sup> Department of Infrastructure, Planning and Natural Resources, *Native Vegetation Reform Implementation Group, Final Report*, (Sydney, DIPNR, October 2003); Recommendations 6 – 12 of the Sinclair Report related to the establishment and responsibilities of CMAs.



### 6.4.1 The role of catchment management authorities

Catchment management authorities were formally established in January 2004 as statutory authorities each with a responsible and accountable board which reports directly to the relevant State Minister.<sup>59</sup> Thirteen CMAs were set up across New South Wales “to ensure that regional communities have a say in how natural resources are managed in their catchments.”<sup>60</sup> The CMAs work “with farmers, Landcare and other ‘carer’ groups, Aboriginal communities, local government, industry and state agencies to respond to the key natural resource management (NRM) issues facing their catchments.”<sup>61</sup>

A major function of the CMAs is the preparation of natural resource-based catchment action plans.<sup>62</sup> These are 10-year strategic plans designed to build on and integrate existing regional vegetation management plans (RVMPs) produced by the RVMCs and catchment blueprints produced (primarily) by the former CMBs. CAPs aim to meet local community concerns, the standards and targets set by the NSW Natural Resources Commission and the funding requirements of the NSW and Australian Governments.<sup>63</sup> CMAs are also the consent body for native vegetation clearing on rural and rural residential land,<sup>64</sup> and provide support for landowners who wish to apply to carry out land clearing through the preparation of a property vegetation plan (PVP) including: (a) assistance during the application process; (b) support and negotiation with landholders to reach decisions about clearing and actions to offset the impact of approved clearing; and (c) financial incentives to assist movement to

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<sup>59</sup> At the time of writing the responsible Minister is the Minister for Climate Change and the Environment.

<sup>60</sup> Catchment Management Authorities New South Wales, *Statewide Catchment Management Authorities*, (2010) <http://www.cma.nsw.gov.au>; viewed 2 October 2010.

<sup>61</sup> Ibid.

<sup>62</sup> *Catchment Management Authorities Act 2003*, s 15(a); s 19.

<sup>63</sup> Southern Rivers Catchment Management Authority, *Role of SRCMA*, (Wollongong, SRCMA, 2009) [http://www.southern.cma.nsw.gov.au/about\\_us-role\\_of\\_SRCMA.php](http://www.southern.cma.nsw.gov.au/about_us-role_of_SRCMA.php), viewed 16 April 2009.

<sup>64</sup> The formal position is that the Minister responsible for administering the Act (currently, the Minister for Climate Change and the Environment) decides whether or not to grant consent for clearing (*Native Vegetation Act 2003*, s.13) and to approve a PVP (*Native Vegetation Act 2003*, s 27(1)). In practice, the Minister has delegated these powers to the Boards of Catchment Management Authorities, as well as their general managers (*Native Vegetation Act 2003*, s 48(2)). Land excluded from the operation of the *Native Vegetation Act 2003* includes “urban land” (which consists of most of the local government areas comprising the Sydney metropolitan area), and land within a zone designated “residential” (but not “rural-residential”), “village”, “township”, “industrial” or “business” under an environmental planning instrument – see *Native Vegetation Act 2003*, Schedule 1, Part 3.



sustainable practices, environmental protection and native vegetation management.<sup>65</sup> Clearing of native vegetation can be approved if the landholder commits to implementing a PVP approved by the CMA (that offsets the environmental damage likely to be caused by the clearing),<sup>66</sup> or by applying to the CMA for development consent to clear.<sup>67</sup>

The benefits of the 2003 reforms are particularly evident, for example, in the history of management of the Hawkesbury-Nepean catchment. The Hawkesbury-Nepean Catchment Trust was established in 1993 and was disbanded in 2001, with the Trust's functions thence being exercised as an interim measure by its own Local Government Advisory Group. Although the input of local government is essential to successful catchment management, this interim situation was not ideal as the role and charter of local government does not necessarily lend itself to the broader vision required for whole-of-catchment management. Early in 2003 the Trust was replaced by the Hawkesbury-Nepean Catchment Board, which in turn was superseded by the present Hawkesbury-Nepean Catchment Management Authority.

The greater geographic coverage of the thirteen CMAs presently in NSW is evidenced in *Map 6.1: Catchment Management Authorities in NSW*. The Sydney Region, for example, is largely covered by two CMAs – the Sydney Metropolitan and Hawkesbury-Nepean CMAs – although parts of the Hunter/Central Rivers and Southern Rivers CMAs also fall within the Sydney Region. The Hunter/Central Rivers CMA comprises an area previously covered by the Central Coast, Hunter, and Lower North Coast catchment management boards, whilst the Southern Rivers CMA consists of the areas that were the prior responsibility of the Southern and South Eastern CMBs. Appreciation of the extent of natural resource management consolidation is evidenced when one considers that the Southern Catchment Management Board alone covered an enormous geographical area, encompassing the management areas of the former Hacking River, Illawarra and Shoalhaven CMCs.<sup>68</sup>

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<sup>65</sup> Southern Rivers Catchment Management Authority, above n 63.

<sup>66</sup> *Native Vegetation Regulation 2005*, cl.9(10)(h).

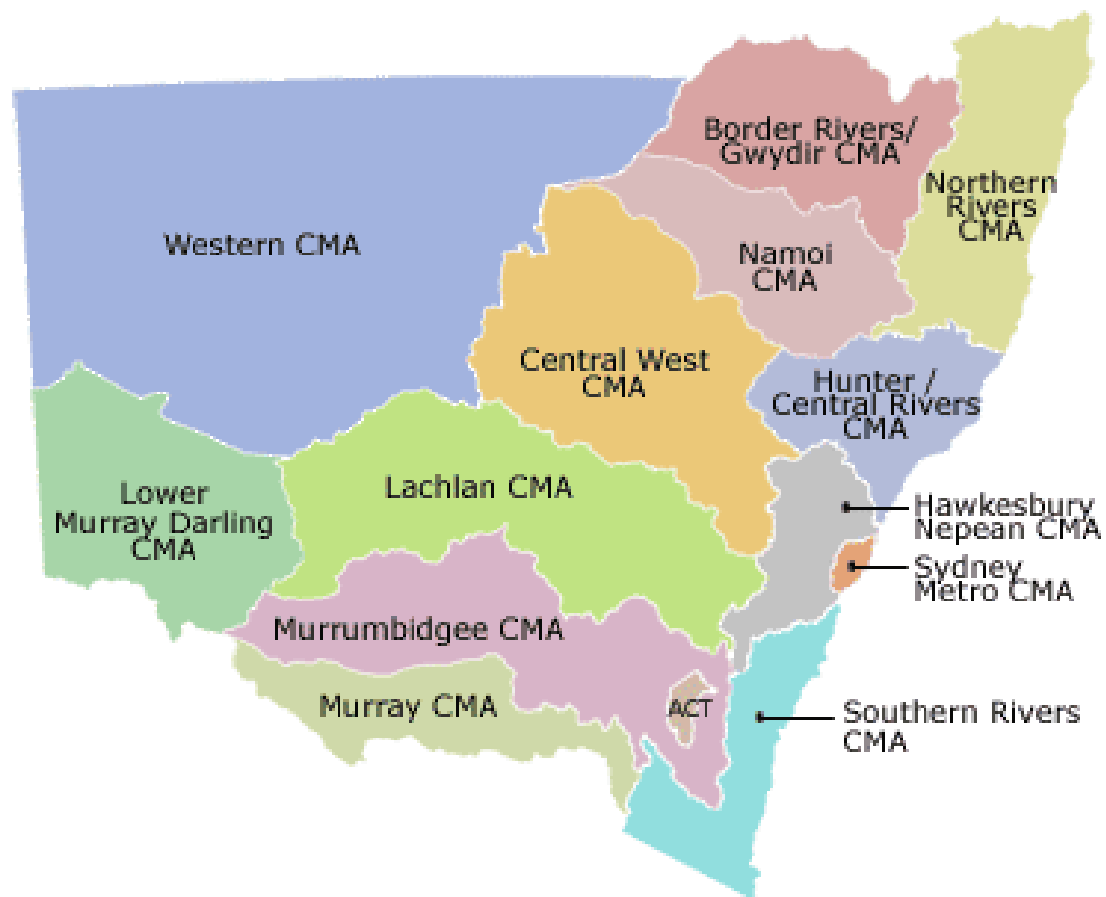
<sup>67</sup> *Native Vegetation Act 2003*, s.13 and s 48(2).

<sup>68</sup> *Catchment Management Regulation 1999*, cl.4(n).



The implication for natural resource management in Sydney – as elsewhere in NSW – is that CMAs with more extensive responsibilities over geographically larger areas of land have been created. In addition to catchment action plans, administration and management of PVPs and native vegetation consents under the *Native Vegetation Act 2003*,<sup>69</sup> responsibilities of CMAs also include management of environmental water licences and water conservation trusts,<sup>70</sup> and delivery of natural resource management funding from the Commonwealth and NSW Governments. CMAs thus have the broader responsibility than accorded their predecessors of coordinating natural resource management in each catchment.<sup>71</sup>

**Map 6.1: Catchment Management Authorities in NSW**



Source: Catchment Management Authorities website ([www.cma.nsw.gov.au](http://www.cma.nsw.gov.au))

<sup>69</sup> On land not excluded from the operation of the *Native Vegetation Act 2003* by Schedule 1 of that Act.

<sup>70</sup> *Catchment Management Act 2003*, s.30A.

<sup>71</sup> NSW Government, *Catchment Management Authorities: An Overview*, (Sydney, NSW Government, 2005) <http://cma.nsw.gov.au>, viewed 5 January 2009.



Since 2009, CMAs have been jointly funded through a bilateral agreement between the NSW and Commonwealth governments, as well as numerous partners and corporate sponsors.<sup>72</sup> CMA funding from the Commonwealth Government, previously available under the former National Action Plan for Salinity and Water Quality (NAP) and Natural Heritage Trust (NHT) have, since July 2008, been administered through the Caring for our Country initiative.<sup>73</sup> Caring for our Country is currently delivered through interim bilateral agreements between the Commonwealth and each of the States and Territories.<sup>74</sup> In 2009 more than \$403 million was approved by the Commonwealth Government for Caring for our Country funding to a wide range of organisations to undertake environmental and sustainable farming projects.<sup>75</sup> CMA funding from the State Government is directed through the NSW Sustainability Trust and the Land and Water Management Plan Program.<sup>76</sup>

#### **6.4.2 The Hawkesbury-Nepean Catchment Management Authority**

The Hawkesbury-Nepean Catchment Management Authority ('the HNCMA') covers much of the land on the fringe of Sydney. The HNCMA's primary role in relation to natural resource management has been the development and implementation of its River Health Program which focuses on protection and remediation of riparian lands through on-ground projects such as revegetation, weed management and erosion control activities. In addressing these priority natural resource management issues,

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<sup>72</sup> Hawkesbury-Nepean Catchment Management Authority, *Who Funds Us*, (2008) <http://www.hn.cma.nsw.gov.au/topics/2479.html>, viewed 3 October 2010.

<sup>73</sup> Australian Local Government and Coasts, *Caring for our Country – About Us*, (2010) <http://www.nrm.gov.au/about/index.html>, viewed 3 October 2010. The Caring for Country initiative is administered by Australian Government Land and Coasts (AGLC), a cross-departmental team comprising staff from the Australian Government departments of Sustainability, Environment, Water, Population and Communities and Agriculture, Fisheries and Forestry. The NAP and NHT were replaced on 1 July 2008 by Caring for our Country, which is a \$2.25 billion program over five years to June 2013 designed to delivery of the Commonwealth's previous natural resource management programs including the NHT, the NAP, the National Landcare Program and the Environmental Stewardship Program.

<sup>74</sup> Bilateral agreements with the states and territories were originally established under the former programs, the Natural Heritage Trust and Nation Action Plan for Salinity and Water Quality. See: Australian Local Government and Coasts, 2010, *Caring for our Country – Policies, agreements and frameworks*, <http://www.nrm.gov.au/nrm/documents.html>, viewed 3 October 2010.

<sup>75</sup> Australian Local Government and Coasts, *Caring for our Country – Business Plan 2009-10 successful projects* (2010) <http://www.nrm.gov.au/business-plan/funded/index.html>, viewed 3 October 2010.

<sup>76</sup> NSW Government, *Catchment Management Authorities*, (Sydney, NSW Government, 2005), <http://www.cma.nsw.gov.au>, viewed 5 January 2009.



the HNCMA “works with and provides funding to landholders, local councils, non-government organisations and indigenous groups, and also provides extension, technical support and training to build capacity in the community.”<sup>77</sup> Between 2004 and July 2008, the HNCMA invested over \$61 million in on-ground catchment improvements.<sup>78</sup>

Major responsibilities of the HNCMA are outlined in its River Health Program and the *Hawkesbury-Nepean Catchment Action Plan 2007-2016* (HNCAP). Recognising that the Hawkesbury Nepean River system is “a catchment of national significance”,<sup>79</sup> the River Health Program provides funding for landholders and local councils to provide on ground improvements to the health of the catchment. Key projects of the Hawkesbury-Nepean Catchment River Healthy Program include: the River Restoration Project, which assists landholders protect and restore creek and river banks throughout the catchment; the Wetlands Management Program, which aims to restore and protect wetlands on private property as well as Wetlands of National Importance; and the Estuary and Coastal Management Program, where the HNCMA offers community groups and grants up to \$20,000 to help improve coastal and estuary areas of the catchment.<sup>80</sup>

The *Hawkesbury-Nepean Catchment Action Plan 2007-2016* was approved by the Minister for Environment and Climate Change in March 2008 and frames the direction for the activities and investment of the Hawkesbury-Nepean CMA over a ten-year period. The HNCAP is a non-regulatory statutory plan created under the *Catchment Management Authorities Act 2003* (i.e. its contents are not legally binding or enforceable), and operates across the same area as the CMAs boundaries.<sup>81</sup> As is the case with all CAPs, the HNCAP represents the first stage of managing the catchment so as to “improve river health, protect biodiversity and encourage best

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<sup>77</sup> Office of the Hawkesbury-Nepean, *Our role – working together for a healthy river*, (Penrith, Office of the Hawkesbury-Nepean, 2010), <http://www.ohn.nsw.gov.au/About-us/mission/default.aspx>, viewed 2 October 2010.

<sup>78</sup> Hawkesbury-Nepean Catchment Management Authority, *Who Funds Us*, (2008) <http://www.hn.cma.nsw.gov.au/topics/2479.html>, viewed 3 October 2010.

<sup>79</sup> Hawkesbury-Nepean Catchment Management Authority, *River Health Program*, (2008) <http://www.hn.cma.nsw.gov.au/topics/2094.html>, viewed 2 October 2010.

<sup>80</sup> Ibid.

<sup>81</sup> Hawkesbury-Nepean Catchment Management Authority, *Catchment Action Plan*, (2008) <http://www.hn.cma.nsw.gov.au/topics/2181.html>, viewed 2 October 2010.



practice soil and land management.”<sup>82</sup> These goals are sustained by community and local government partnership programs such as the River Health Program. The HNCAP “sets clear targets and a timetable for the CMA's action and investment and is designed to be responsive to the changing needs of the catchment and the community.”<sup>83</sup> Delivery of the HNCAP is via an Annual Implementation Plan, which is funded by a three-year rolling Investment Strategy. The bilateral agreement between the State and Commonwealth governments requires CMAs across NSW to direct at least 80% of their investment to on ground works, with the remaining 20% is to be spent on coordination, community support, monitoring and evaluation.<sup>84</sup> Overall, 70% of CMA investment is aimed at private landholders' properties.<sup>85</sup>

### 6.4.3 Catchment management and local government

In NSW all local councils, irrespective of their size or location, make a significant contribution to the management and protection of the state's natural resources. As managers of public land and land use planners, local councils are responsible for establishing and implementing policy affecting land use and natural resource management (NRM) as well as regulating a wide range of activities that may impact upon NRM.<sup>86</sup> Local government also has a key role to play in translating the policies of Commonwealth and state governments into on-ground projects.<sup>87</sup>

Catchment management has been described as “the logical management unit for NRM”.<sup>88</sup> Local Government has a range of functions, powers and responsibilities at its disposal to influence this unit of natural resource management. These include:

- “strategic planning through land use zoning and statutory controls

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<sup>82</sup> Ibid.

<sup>83</sup> Ibid.

<sup>84</sup> Hawkesbury-Nepean Catchment Management Authority, *Implementing the CAP*, (2008) <http://www.hn.cma.nsw.gov.au/infopages/2185.html>; viewed 2 October 2010.

<sup>85</sup> Hawkesbury-Nepean Catchment Management Authority, above n 78.

<sup>86</sup> Local Government and Shires Associations of NSW, *Local Government's Role in NRM*, (Sydney, LGSA, 2010), <http://www.lgsa.org.au/www/html/292-local-governments-role-in-nrm.asp>, viewed 24 December 2010.

<sup>87</sup> Ecological Australia Pty Ltd, *Review of the Integration of the NSW Land-Use Planning System and the Regional NRM Delivery Model*, Discussion Paper – February 2009, prepared for the Local Government and Shires Associations of NSW, (Sydney, LGSA, 2009).

<sup>88</sup> Ibid, p 9.



- development control of nearly all activities and works through development consent powers
- enforcement powers for development consent conditions, waste management and unauthorised land uses (e.g. land clearing, drainage and filling)
- administrative responsibility for state agency coordination through integrating planning, licensing and development concurrence
- water management and control for stormwater, sewerage and flooding
- risk control measures relating to pests, plants and animals
- influence over land clearance patterns through incentive programs (planning agreements, rate differentials, levies, rural fire management and developer contributions)
- management of local open space to restore remnant vegetation and recreate habitat, and
- primary advocate and coordinator of local community groups and interests.”<sup>89</sup>

In 2004 a memorandum of understanding (MOU) was signed between state and local governments in NSW called the *Natural Resource Management Partnership Agreement*.<sup>90</sup> The MOU committed local government inter alia, “to help deliver natural resource management outcomes through the Catchment Action Plan process.”<sup>91</sup> In June 2008 the NSW Local Government and Shires Associations (LGSA) and the CMA Chairs signed a new Natural Resource Management Partnership Agreement MOU. The current MOU “recognises that the relationship between State and local government is fundamental to the effective management of natural resources and that the role of local government in the delivery of NRM outcomes is increasing.”<sup>92</sup> Specific commitments under the 2008 MOU include the integration of CAPs and land use planning, collaboration on specific projects, information sharing, identification of the capacity needs of local government, and the communication of CMA and council needs to State and Federal governments.

In early 2008 the LGSA, with financial support from the Sydney Metropolitan CMA and the Commonwealth Government, commenced a new project within the natural

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<sup>89</sup> Local Government and Shires Associations of NSW, above n 86.

<sup>90</sup> MOU between: Minister of Infrastructure, Planning, and Natural Resources on behalf of NSW Catchment Management Authorities, Director General of Infrastructure, Planning and Natural Resources, President of the Local Government Association of NSW, President of the Shires Association, Secretary General of the Local Government Association and Shires Association of NSW on behalf of local councils in NSW.

<sup>91</sup> Cited in: Farrier, D. and Stein, P. (eds.), *The Environmental Law Handbook*, 4<sup>th</sup> edn. (Redfern, Redfern Legal Centre Publishing, 2006), p 406.

<sup>92</sup> Ecological Australia Pty Ltd, above n 87, p 25.



resource management policy area, the *Integrating NRM into Local Government Land Use Planning Project*. Several reports were produced from this project, which aimed to investigate and provide guidance on local planning for NRM to ensure that “decision-making processes at both regional and local level strategic planning and development control take account of key issues in managing natural resources.”<sup>93</sup> Relevantly, a separate report and guidelines were prepared for use by local councils, CMAs and state agencies, for integrating the land use planning system with regional NRM via delivery through catchment management, and the integration of NRM into local government operations.<sup>94</sup>

While still at a nascent stage, the forging of partnerships between CMAs and local councils is slowly progressing, with some instances of cooperation at a strategic level evident between individual councils and their relevant CMA.<sup>95</sup> The HNCAP for example, identifies local government as being a key provider of natural resource management in the Hawkesbury-Nepean catchment. The HNCAP asserts that the capacity of local government to deliver high quality programs to support community objectives for healthy and productive catchments has been increasing steadily, as has the level of investment in natural resource management.<sup>96</sup> However, challenges remain, as the number of services local government is expected to deliver is increasing faster than its ability to fund them, and in this situation natural resource management is not always a top priority.<sup>97</sup> In response to this pressure on maintaining funding for local council initiatives for catchment management, the HNCAP incorporates a Local Government Partnership Program which supports local government action in targeted natural resource management outcomes.<sup>98</sup> Further analysis of the formulation and application of recent catchment management initiatives by local councils in NSW is considered in Chapter 8.

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<sup>93</sup> Local Government and Shires Associations of NSW, *Integrating NRM into Land Use Planning*, (Sydney, LGSA, 2010), <http://www.lgsa.org.au/www/html/2351-integrating-nrm-into-council-land-use-planning.asp>, viewed 24 December 2010.

<sup>94</sup> See: Local Government and Shires Associations of NSW, above n 93.

<sup>95</sup> Interview with Don Geering, formerly with Department of Planning, (Sydney, 3 August 2007).

<sup>96</sup> Hawkesbury-Nepean Catchment Management Authority, *Hawkesbury-Nepean Catchment Action Plan 2007-2016*, (Goulburn, HNCMA, 2008), p 40, <http://www.hn.cma.nsw.gov.au/multiversions/3081/FileName/CAP39-50.pdf>, viewed 2 October 2010.

<sup>97</sup> Ibid, p 40.

<sup>98</sup> Ibid, p 40.



#### 6.4.4 Office of the Hawkesbury-Nepean

Finally, a more recent catchment management reform in Sydney *outside the existing CMA framework* transpired when the *Metropolitan Water Plan 2008 Progress Report* foreshadowed the establishment of an Office of the Hawkesbury-Nepean River. This organisation is seen as needed “to better coordinate management of the river system and reduce complexity in decision-making ... a one-stop-shop for the community to find out about existing programs and access the expertise of all the relevant agencies.”<sup>99</sup> Legislation to establish the Office of the Hawkesbury-Nepean – the *Hawkesbury-Nepean River Act 2009* – was passed by the NSW Parliament in April 2009. With the creation of this office, it was envisaged that there would be “a single body ... responsible for making decisions for the river”.<sup>100</sup> However, the legislation does not appear to have done this and so the role and potential effectiveness of the Office is questionable. For example, the Office cannot directly employ staff,<sup>101</sup> and it has no effective decision-making powers. This decision-making deficiency of the Office is evident from the limited functions ascribed to it under the *Hawkesbury-Nepean River Act 2009*.<sup>102</sup> These are confined to: the co-ordination and implementation of management strategies prepared by other government agencies in relation to the health of the Hawkesbury-Nepean river system;<sup>103</sup> provision of information about management strategies;<sup>104</sup> provision of opportunities for public involvement in the development of management strategies;<sup>105</sup> and promotion of effective management of “in-stream development”,<sup>106</sup> through liaison with planning authorities provision of information and assistance to members of the public.<sup>107</sup>

Nonetheless, it is anticipated that the Office and the HNCMA “will work closely together to ensure consistency of effort, reduce duplication of stakeholder interactions

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<sup>99</sup> Department of Water and Energy, *Metropolitan Water Plan 2008 Progress Report*, (Sydney, DWE, 2009), p 30.

<sup>100</sup> *Ibid*, p 30.

<sup>101</sup> *Hawkesbury-Nepean River Act 2009*, s 16(3)

<sup>102</sup> *Hawkesbury-Nepean River Act 2009*, Part 3.

<sup>103</sup> *Hawkesbury-Nepean River Act 2009*, s 12.

<sup>104</sup> *Hawkesbury-Nepean River Act 2009*, s 13.

<sup>105</sup> *Hawkesbury-Nepean River Act 2009*, s 14.

<sup>106</sup> “In-stream development” is defined as “development (within the meaning of the *Environmental Planning and Assessment Act 1979*), a project (within the meaning of Part 3A of that Act) or an activity (within the meaning of Part 5 of that Act) that is carried out or proposed to be carried out in the Hawkesbury-Nepean waters” (vide *Hawkesbury-Nepean River Act 2009*, s 4).

<sup>107</sup> *Hawkesbury-Nepean River Act 2009*, s 15.



and to assist in the coordination of agency efforts to improve river health and help deliver the Hawkesbury-Nepean Catchment Action Plan.”<sup>108</sup> Effectively, the Office will act as a place manager for the Hawkesbury-Nepean Catchment, and has sought to distinguish its role from that of the HNCMA. The focus of the latter “is on-ground activities that address priority natural resource issues. The CMA works with and provides funding to landholders, local councils, non-government organizations and indigenous groups, and also provides extension, technical support and training to build capacity in the community.”<sup>109</sup> Conversely, the focus of the Office of the Hawkesbury-Nepean is, somewhat vaguely, to “work primarily with state and local government organizations to coordinate whole-of-government efforts in river management. Rather than on-grounds work, the focus of the Office will be strategic assessment of key river management programs, to identify gaps and interactions, and monitor and evaluate the effectiveness of programs and projects in achieving improved river health.”<sup>110</sup>

## **6.5 Biodiversity conservation reform**

Biodiversity certification and biobanking are two relatively new planning tools in NSW. While conceptually different approaches, they are nonetheless designed to work as complimentary mechanisms for biodiversity conservation.

### **6.5.1 Biodiversity certification**

Biodiversity certification (or ‘biocertification’) was introduced with the passage of the *Threatened Species Legislation Amendment Act 2004*. Its introduction was preceded by acknowledgment in the NSW government reform proposal for threatened species conservation in 2004 that “generally it is too late to deal effectively with threatened species at the level of individual properties or small-scale development” and that “threatened species conservation is best achieved through genuinely strategic land use and landscape planning.”<sup>111</sup> The Minister for Climate Change, Environment and

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<sup>108</sup> Office of the Hawkesbury-Nepean, above n 77.

<sup>109</sup> Ibid.

<sup>110</sup> Ibid.

<sup>111</sup> Department of Environment and Conservation, *Threatened Species Conservation in NSW Reform Proposal*, (Sydney, DECC, 2004), p.2.



Water may, by order published in the Gazette, confer biodiversity certification on specified land.<sup>112</sup> Biodiversity certification was initially designed to integrate threatened species assessment into the strategic planning stage through the formulation of environmental planning instruments (EPIs) to deliver strategic conservation outcomes, rather than being mired within the ‘trench warfare’ of site-by-site assessment under the development control process, which was yielding only piecemeal, ad hoc, fragmented conservation sites.<sup>113</sup> The intention of biocertification of planning instruments was that biodiversity values be considered at the time of strategic planning and land-use plan making. Amendment to the TSC Act in 2010 now confers biodiversity certification on specified land rather than on EPIs.<sup>114</sup> Biodiversity certification remains a potentially useful strategic planning tool, and this amendment removes any potential delay in the formulation of EPIs whilst biodiversity certification over land is determined.

Where land is biocertified, there is no requirement to undertake a subsequent site-specific species assessment (commonly known as the seven part test) under s 5A of the EP&A Act, and hence no need to potentially prepare a species impact statement or refer to the *Threatened Species Conservation Act*, when a development proposal is assessed.<sup>115</sup> Where granted, biodiversity certification applies to projects under Part 3A of the EP&A Act,<sup>116</sup> development under Part 4,<sup>117</sup> and activities under Part 5,<sup>118</sup>

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<sup>112</sup> *Threatened Species Conservation Act 1995*, s 126H.

<sup>113</sup> Interview with Ray Fowke, Metropolitan Branch, Department of Environment and Climate Change, (Parramatta, 20 August 2007).

<sup>114</sup> Section 126H of the *Threatened Species Conservation Act 1995*, as inserted by the *Threatened Species Conservation Amendment (Biodiversity Certification) Act 2010*.

<sup>115</sup> *Threatened Species Conservation Act 1995*, s 126I.

<sup>116</sup> For projects under Part 3A of the EP&A Act, “the environmental assessment requirements for the approval of a project, or a concept plan for a project, under Part 3A of the Planning Act do not require an assessment of the impact of the project on biodiversity values if the project is carried out or proposed to be carried out on biodiversity certified land.” (*Threatened Species Conservation Act 1995*, s 126I(1)).

<sup>117</sup> For development under Part 4 of the EP&A Act, “development on biodiversity certified land is taken ... to be development that is not likely to significantly affect any threatened species, population or ecological community under this Act, or its habitat.” (*Threatened Species Conservation Act 1995*, s 126I(2)). Further, “a consent authority, when determining a development application in relation to development on biodiversity certified land under Part 4 of the Planning Act, is not required to take into consideration the likely impact of the development on biodiversity values ...” (*Threatened Species Conservation Act 1995*, s 126I(3)).

<sup>118</sup> In relation to activities under Part 5 of the EP&A Act, “an activity to which Part 5 ... applies which is carried out or proposed to be carried out on biodiversity certified land is taken ... to be an activity that is not likely to significantly affect any threatened species, population or ecological community under this Act, or its habitat.” (*Threatened Species Conservation Act*, s 126I(4)). In addition, “a



overriding the application of the normal assessment provisions of these provisions. In addition, the *Native Vegetation Act 2003* does not apply to biodiversity certified land.<sup>119</sup>

The Minister for Climate Change, Environment and Water “may confer biodiversity certification on land if satisfied that the package of conservation measures set out in an application for biodiversity certification will lead to the overall improvement or maintenance of biodiversity values.”<sup>120</sup> Any planning authority may apply for biodiversity certification.<sup>121</sup> Biodiversity certification may be conferred on land only if the applicant has a biodiversity certification strategy.<sup>122</sup> A biodiversity certification strategy is described under the TSC Act as “a policy or strategy for the implementation of conservation measures to ensure that the overall effect of biodiversity certification is to improve or maintain biodiversity values.”<sup>123</sup> The biodiversity certification strategy is to be used as the basis for the assessment of the application for biodiversity certification;<sup>124</sup> thus where biodiversity values are maintained or improved, a plan or land may be certified. Further discussion of the ‘improve or maintain’ requirement of biodiversity requirements is provided below, and in Chapter 7.

Under the TSC Act, a biodiversity conservation strategy must identify: (a) the land proposed for biodiversity conservation; (b) land proposed for biodiversity conservation on or in respect of which any conservation measures are to implemented; (c) the conservation measures proposed; and (d) any person or body proposed as a party to the biodiversity certification, and hence responsible for the implementation of the proposed conservation measures.<sup>125</sup> Numerous ‘conservation measures’ are

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determining authority under Part 5 of the Planning Act is not required under that Part to consider the effect on biodiversity values of an activity carried out on biodiversity certified land (despite section 111 of the Planning Act).” (*Threatened Species Conservation Act 1995*, s 126I(5)).

<sup>119</sup> *Threatened Species Conservation Act 1995*, s 126I(6).

<sup>120</sup> Department of Environment, Climate Change and Water, *Draft Biodiversity Certification Assessment Methodology*, (Sydney, DECCW June 2010), p.1, <http://www.environment.nsw.gov.au/resources/biocertification/10482draftbiocertam.pdf.pdf>, viewed 6 September 2010.

<sup>121</sup> *Threatened Species Conservation Act 1995*, s126J.

<sup>122</sup> *Threatened Species Conservation Act 1995*, s 126K(1).

<sup>123</sup> *Threatened Species Conservation Act 1995*, s 126K(2).

<sup>124</sup> *Threatened Species Conservation Act 1995*, s 126K(3).

<sup>125</sup> *Threatened Species Conservation Act 1995*, s 126K(4).



identified under the TSC Act, and include adoption of development controls over land under the EP&A Act, entering a planning agreement under the EP&A Act, the entering into of a biobanking agreement under the TSC Act, the acquisition or retirement of biodiversity credits under the TSC Act, and the entering into a conservation agreement under the *National Parks and Wildlife Act 1974*.<sup>126</sup> Conservation measures are also subject to any requirements of the Biodiversity Certification Assessment Methodology.<sup>127</sup>

Land proposed for biodiversity conservation must also comply with any requirements provided for by the Biodiversity Certification Assessment Methodology.<sup>128</sup> Here, the Minister may make rules (by an order published in the Gazette) with respect to the circumstances in which biodiversity certification is to be regarded as improving or maintaining biodiversity values.<sup>129</sup> In particular, the rules are to establish a methodology for assessing: (a) the loss of biodiversity values on land proposed for biodiversity certification; and (b) the impact, or likely impact, of proposed conservation measures on land proposed for biodiversity conservation (including conservation measures that are proposed to be implemented in the future).<sup>130</sup>

A Draft Biodiversity Certification Methodology has been prepared by the DECCW.<sup>131</sup> This is required as biodiversity certification may only be conferred on land where the Minister makes a determination, in accordance with the methodology, that an application for biodiversity certification will improve or maintain biodiversity values.<sup>132</sup> The draft “methodology establishes the circumstances where biodiversity certification of the land is to be regarded as improving or maintaining biodiversity values.”<sup>133</sup> Biodiversity values are to be regarded under the (draft) methodology as being improved or maintained in an application for biodiversity certification if:

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<sup>126</sup> The full list of ‘conservation measures’ is provided under s 126L of the *Threatened Species Conservation Act 1995*.

<sup>127</sup> *Threatened Species Conservation Act 1995*, s 126L(2).

<sup>128</sup> *Threatened Species Conservation Act 1995*, s 126K(5).

<sup>129</sup> *Threatened Species Conservation Act 1995*, s 126S(1).

<sup>130</sup> *Threatened Species Conservation Act 1995*, s 126S(2).

<sup>131</sup> Department of Environment, Climate Change and Water, above n 120.

<sup>132</sup> *Threatened Species Conservation Act 1995*, s 126K.

<sup>133</sup> Department of Environment, Climate Change and Water, above n 120, p 4.



- “1(a) Land where biodiversity certification is conferred does not directly impact on biodiversity values in a red flag area; or
- 1(b) Land where biodiversity certification is conferred directly impacts on biodiversity values in a red flag area but the Director General makes a determination that the application for biodiversity certification, overall, may be regarded as improving or maintaining biodiversity values in accordance with ... the methodology.  
And
- 2 The direct impacts on the biodiversity values of land to which biodiversity certification is conferred are offset in accordance with the rules and requirements of the methodology.  
And
- 3 The Director General determines that any indirect impacts associated with the conferral of biodiversity certification on land are appropriately offset in accordance with the methodology.”<sup>134</sup>

A red flag area is regarded as having high biodiversity conservation values. The Draft Biodiversity Certification Methodology regards an area of land as having high biodiversity conservation values if it meets one or more criteria including, containing: a vegetation type that is greater than 70% cleared in a catchment management authority (CMA) area; a critically endangered or endangered ecological community listed under the TSC Act or EPBC Act; one or more threatened species identified in the Threatened Species Profile Database that cannot withstand further loss in the CMA area; areas of vegetation recognised as having regional or state biodiversity conservation significance; a significant impact on the biodiversity values of World Heritage property, place of National Heritage or Ramsar wetland as listed under the EPBC Act.<sup>135</sup>

Biocertification has experienced considerable difficulties since its introduction in 2004. Evidence for this observation is based on factors such as the only example of a gazetted certified EPI in the Sydney Region to date is the Growth Centres SEPP, and the 2010 amendments to the TSC Act (the *Threatened Species Conservation Amendment (Biodiversity Conservation) Act 2010*) which now allows land to be certified rather than EPIs. Further elaboration of the challenges facing biocertification is provided in Chapters 7 and 8.

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<sup>134</sup> Ibid, p 4.

<sup>135</sup> Ibid, pp 4-5.



## 6.5.2 Biobanking

The framework for the *NSW Biodiversity Banking and Offset Scheme* was established under the *Threatened Species Conservation Amendment (Biodiversity Banking) Act 2006* and commenced in July 2008.<sup>136</sup> The scheme seeks to provide a voluntary, market-based, mechanism to assist in conservation management in the context of accommodating new urban growth across the State. The scheme aims to be comprehensive – the biobanking provisions include requirements for biobanking statements, creation of biodiversity credits (calculated using published assessment methodology), detailed regulations (including cost recovery), establishment of a BioBanking Trust Fund, BioBanking public registers and enforcement provisions.<sup>137</sup>

As stipulated in Part 7A of the TSC Act, the biobanking scheme is required to have the following key elements:

- “a) the establishment of biobank sites on land by means of biobanking agreements entered into between the Minister and the owners of the lands concerned,
- (b) the creation of biodiversity credits in respect of management actions carried out or proposed to be carried out on or in respect of biobank sites that improve biodiversity values,
- (c) a system that enables those biodiversity credits, once created and registered, to be traded (including by being purchased by developers) and used as an offset against the impact of proposed development on biodiversity values,
- (d) the establishment of a biobanking assessment methodology, by order of the Minister published in the Gazette, for the purpose of determining both the number of biodiversity credits that may be created in respect of management actions or proposed management actions and the number of biodiversity credits that must be retired in connection with a development to offset the impact of the development and ensure that it improves or maintains biodiversity values.”<sup>138</sup>

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<sup>136</sup> The *Threatened Species Conservation Amendment (Biodiversity Banking) Act 2006* introduced new provisions (Part 7A – Biodiversity Banking) to the *Threatened Species Conservation Act 1995*.

<sup>137</sup> NSW Department of Environment and Climate Change, *BioBanking. Biodiversity Banking and Offsets Scheme. Scheme Overview*, (Sydney, DECC, 2007).

<sup>138</sup> *Threatened Species Conservation Act 1995*, s.127A(2)(a)-(d).



Like biocertification, biobanking seeks to provide a systematic framework – a biobanking assessment methodology – to counterbalance the impact of development to achieve the ‘maintain or improve’ outcome for biodiversity values. In order to meet the ‘maintain or improve’ outcome, high conservation value land is to be protected under the scheme. Biodiversity loss is to be avoided and minimized where possible before offsets are considered.<sup>139</sup>

In brief, the scheme ‘switches off’ the species impact assessment requirements applicable to projects under the EP&A Act and the TSC Act. Specifically, it removes the need to consider whether a proposal is likely to have a significant effect on threatened species, populations, or ecological communities or their habitats (the ‘seven part test’);<sup>140</sup> the need for a species impact statement (SIS) under Parts 4 and 5 of the EP&A Act,<sup>141</sup> and the related requirements for concurrence or consultation, also do not apply.<sup>142</sup>

Under the scheme, biobank sites may be established by means of biobanking agreements entered into between the Minister and the owner(s) of the land concerned.<sup>143</sup> Management actions carried out, or proposed to be carried out, on biobank sites that improve biodiversity values create tradeable biodiversity credits that can be used to offset the impact of proposed development on biodiversity values.<sup>144</sup> A biobanking statement may be issued in respect of any “development for which biobanking is available” – which is any development that is a project to which Part 3A of the EP&A Act applies, requires consent under Part 4 of that Act, or is an activity to which Part 5 of that Act applies.<sup>145</sup> However, participation in the scheme is voluntary (that is, it is not necessary to obtain a biobanking statement in respect of the development). Under the TSC Act, a biobanking statement can only be issued for

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<sup>139</sup> *Threatened Species Conservation Act 1995* (NSW), ss 127B(3); Department of Environment, Climate Change and Water, *Draft Biobanking Assessment Methodology (Version 2)*, (Sydney, DECCW, 2010), p 4, <http://www.environment.nsw.gov.au/resources/biobanking/10800DraftBBAMv2.pdf>, viewed 31 December 2010.

<sup>140</sup> *Environmental Planning and Assessment Act 1979*, s.5A.

<sup>141</sup> *Threatened Species Conservation Act 1997*, s.127ZO qualifying *Environmental Planning and Assessment Act 1979*, s.78A(8)(b); and TSC Act s.127ZP qualifying EP&A Act s.111(4).

<sup>142</sup> Lyster et al, above n 30, p 135.

<sup>143</sup> *Threatened Species Conservation Act 1995*, ss.127D-127L.

<sup>144</sup> *Threatened Species Conservation Act 1995*, ss.127V 127ZI.

<sup>145</sup> *Threatened Species Conservation Act 1995*, s.127ZJ.



a proposed development where the Director General of DECCW makes a determination in accordance with the biobanking methodology that the development will improve or maintain biodiversity values.<sup>146</sup> If a statement is obtained, the proponent of the development obtains the benefit of the statement – that is, the proposal is taken to not likely to significantly affect any threatened species, population or ecological community under this Act, or its habitat, and so the need for a SIS does not apply. In addition, the effect of a biobanking statement is that the consent authority under Part 4, or the determining authority under Part 5, is not required to take into consideration the likely impact of the development or activity on biodiversity values.<sup>147</sup> Although the scheme dispenses with the need for a SIS, unavoidably the application for a biobanking statement still requires some level of species impact assessment.

Managed by the NSW Department of Environment, Climate Change and Water, biobanking has not necessarily been enthusiastically received to date by other State agencies such as the Department of Planning for two reasons – first it is still largely at the conceptual stage and second the ‘devil in the detail’ of the operation of the scheme.<sup>148</sup> Issues going to the heart of biobanking include whether overall biodiversity values can truly be said to be maintained by offsetting, how to determine the standard required for on-site environmental protection, and monitoring and review.<sup>149</sup> Some of these aspects are considered in more detail in Chapter 7.

## 6.6 Resolving a fragmented regulatory landscape?

Fragmentation of natural resource management through the separate evolution of resource management and land use/environmental planning legislation in NSW has

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<sup>146</sup> *Threatened Species Conservation Act 1995*, s.127ZL(1) & (2); see also: Environmental Defender’s Office NSW Ltd, *Submission on the Draft Biodiversity Certification Methodology*, (Sydney, EDO, July 2010), p 3, [http://www.edo.org.au/edonsw/site/pdf/subs10/100730draft\\_biodiversity\\_certification\\_methodology.pdf](http://www.edo.org.au/edonsw/site/pdf/subs10/100730draft_biodiversity_certification_methodology.pdf), viewed 30 December 2010.

<sup>147</sup> *Threatened Species Conservation Act 1995*, s.127ZO(5), qualifying *Environmental Planning and Assessment Act 1979*, s.79C; and *TSC Act* s.127ZP(7), qualifying *EP&A Act* s.111.

<sup>148</sup> Interview with Don Geering, formerly with NSW Department of Planning (Sydney, 3 August 2007).

<sup>149</sup> Robinson, D., ‘Strategic planning for biodiversity in New South Wales’ (2009) 26 *Environmental Planning and Law Journal* 213 at 220.



been well documented.<sup>150</sup> Attempts to create a more integrated planning system have been quite inadequate however, as they have tended to concentrate on the integration of development control and approvals only. In order to come to grips with the cumulative impacts of development, for example, focus must also be placed on the actual activity of strategic or forward planning, administration of the planning system, and the legislative context in which this takes place. This is particularly the case of the many planning and development consent decisions made at the local level in relation to biodiversity, where “the accumulation of incremental habitat losses and deterioration of ecosystem health results in tragic and irreversible biodiversity loss, or ‘death by a thousand cuts’.”<sup>151</sup>

With respect to combating biodiversity loss in NSW for example, it is clear that local government policy and strategy is especially significant. Aside from threatened species listings at the federal or at State level (under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) and the *Threatened Species Conservation Act 1995* (NSW) respectively), it is at the “more local spatial scale that many opportunities exist to appreciate realistically a broader suite of biodiversity values and to act upon them within a legal and policy framework. Consequently, local government policy is highly significant because it influences directly how and where urban development takes place, which in turn shapes the ecology of urbanised landscapes.”<sup>152</sup>

In relation to catchments, a holistic or integrated approach to catchment planning and management should, if properly implemented, incorporate all aspects of natural resource interaction and protection – biodiversity/nature conservation, agricultural or rural land and open space protection and management.<sup>153</sup> It is arguable whether contemporary catchment planning in NSW has progressed to this desired level of

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<sup>150</sup> Farrier, D., ‘Fragmented Law in Fragmented Landscapes: the Slow Evolution of Integrated Natural Resource Management Legislation in NSW’ (2002) 19(2) *Environmental and Planning Law Journal* 89.

<sup>151</sup> Taylor, M.P. and Ives, C., ‘Legislative and policy challenges for the protection of biodiversity and bushland habitats: An evidence-based approach’, (2009) 26 *Environmental Planning and Law Journal* 35 at 37.

<sup>152</sup> *Ibid*, p 37.

<sup>153</sup> Interview with John Whitehouse, Board Member, Sydney Catchment Authority (Sydney, 21 March 2007).



sophistication. While this deficiency also extends to institutional or administrative fragmentation, some attempt to achieve better integration *is* evident. The catchment management authorities continue to play a key role in the land management of Sydney. In the area of biodiversity conservation the CMAs, particularly the Hawkesbury-Nepean CMA, work closely with DECCW. Internal maps produced by DECCW which show areas of high conservation value vegetation in Western Sydney, for example, are basically published in the Hawkesbury-Nepean CMA Catchment Action Plan, and so are identified as areas worthy of protection through this forum.<sup>154</sup> This has the tangential but crucial advantage of negating the need for DECCW to publish maps showing property or cadastral details of areas of high biodiversity value, and so avoiding a repeat of the Growth Centres green zones debacle which was caused by publishing similar detailed maps.<sup>155</sup>

Planning and management responsibilities for natural resources – whether it be land, water, vegetation, soil, fauna etc – are still fragmented between different (often competing) government departments and local authorities and disparate legislative and policy frameworks, so that in effect the reforms which have occurred to date have only resulted in ‘integration’ within fragmented resource management and regulatory systems, rather than integration between systems. Until this obstacle can be addressed and such efforts seen in a holistic context, natural resource management will not be truly integrated, much to the on-going detriment of the conservation of those resources and of ecological sustainability. The biocertification of LEPs or land, for example, while still in its infancy, has the potential to proactively protect biodiversity across the landscape. However, it “is evolving within a complicated political, planning, legal and scientific context that is delaying implementation ... Biocertification is a planning tool which has been prepared and applied outside the planning system under the EP&A Act, and without the practical support of planning authorities, especially the DOP.”<sup>156</sup> Strategic planning is the role of the DOP and

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<sup>154</sup> Interview with Ray Fowke, Metropolitan Branch, Department of Environment and Climate Change, 20 August 2007.

<sup>155</sup> Interview with Ray Fowke, Metropolitan Branch, Department of Environment and Climate Change, 20 August 2007.

<sup>156</sup> Connolly, I. and Fallding, M. ‘Biocertification of local environmental plans – promise and reality’, (2009) 26 *Environmental and Planning Law Journal* 128 at 151.



local councils; however biocertification is driven by the DECCW, “and remains an unsupported appendage to the main planning system.”<sup>157</sup>

The EP&A Act does, nonetheless allow EPIs – in particular SEPPs (and, until July 2009, REPs) – to be made to manage natural resources on a bioregional (such as a catchment) basis. However, for the most part, SEPPs and REPs have not been used to achieve strategic planning objectives, instead being used in an ad hoc way, often focussing on specific issues from a development control perspective.<sup>158</sup> Generally SEPPs and REPs have not focused on broader regional catchment or other bioregional aims, though one case where the SEPP process has been employed, to limited success, is in the Sydney water catchment through *State Environmental Planning Policy No.58 – Protecting Sydney’s water supply*,<sup>159</sup> discussed further in the next chapter. Further, in preparing EPIs, planning authorities have to take into account environmental and natural resource issues. In relation to biodiversity for example, a planning authority must consult with the Director-General of the DECCW before an EPI is made if, *in their opinion*, “critical habitat or threatened species, populations or ecological communities, or their habitats, will or may be affected adversely by the proposed instrument.”<sup>160</sup> This role is discretionary, just as the EP&A Act places a broader discretion in the hands of Minister for Planning to determine whether consultation is required with materially affected authorities when preparing a planning proposal for a proposed LEP.<sup>161</sup> Under this provision, the DECCW for example can give advice or information relating to threatened species and environmental assessment processes. In both instances of consultation – for EPIs generally and LEPs in particular – it is up to the discretion of the Minister and planning authority as to how the information or advice provided is used.<sup>162</sup>

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<sup>157</sup> Robinson, D, above n 149, p 215.

<sup>158</sup> Examples of such EPIs include *State Environmental Planning Policy No.14 – Coastal Wetlands*; *State Environmental Planning Policy No.19 – Bushland in Urban Areas*; *State Environmental Planning Policy No.44 – Koala Habitat Protection*; *Sydney Regional Environmental Plan No.8 – Central Coast Plateau Areas*; *Sydney Regional Environmental Plan No.9 – Extractive Industry (No.2 -1995)*.

<sup>159</sup> Farrier, D. and Stein, P., above n 57, p 552.

<sup>160</sup> *Environmental Planning and Assessment Act 1979* (NSW), s.34A(2).

<sup>161</sup> *Environmental Planning and Assessment Act 1979* (NSW), s.56(2)(d).

<sup>162</sup> Connolly, I. and Fallding, M., above n 156, p 129.



## 6.7 Conclusion

Three interlinked themes of legislative reforms of the land use planning and natural resource management systems have been investigated in this chapter. The *PlanFirst* reform can be characterised as seeking to integrate three disparate systems – land use planning, natural resource management and environmental protection – under the umbrella of a single local plan under the EP&A Act. Conversely, the reforms linking land use planning and natural resource management – specifically catchment management and biodiversity conservation – did not aim to create a unitary legislative and strategic framework which was sought by *PlanFirst*. Rather, these reforms accommodate separate legislation, plans and strategies under the land use planning, catchment management and natural resource management systems. However the forging of formal linkages were sought between land use planning system on the one hand, and each of these natural resource management systems on the other.

The failure of statutory, policy and institutional reform in land use planning, catchment planning and biodiversity conservation paints a bleak picture for the future growth management of Sydney. Questions can be asked about the future amenity or ‘liveability’ of Sydney in the face of the ongoing failure to adequately address the challenges that the continuing mismanaged growth of the city has created. Recent State and local governments’ attempts at more effective growth management in Sydney and its environs are analysed in the next two chapters.

### Postscript

Following the election to government of the Liberal-National Party Coalition at the March 2011 NSW State Election, significant changes to Ministerial portfolios and departmental names and structures occurred. Most noticeably, the Department of Planning became the Department of Planning and Infrastructure, and the Department of Environment, Climate Change and Water was abolished, and became the Office of Environment and Heritage.



# 7

## RECENT STATE GOVERNMENT APPROACHES TO URBAN GROWTH MANAGEMENT IN SYDNEY

### 7.1 Introduction

Considered in this chapter are current and recent approaches (generally within the past 10 years) at State government level to urban growth management in Sydney, from the perspectives of land use planning, natural resource conservation and environmental protection. The three broad approaches identified in this thesis are considered in this chapter, these being strategic and policy, regulatory, and economic (including market based and fiscal) approaches. Examined within each of these approaches are specific tools, mechanisms and policies recently adopted and applied by State government agencies in the Sydney Region, and in some cases more generally throughout NSW. This analysis also utilizes information and views on growth management approaches existent in NSW, distilled from interviews with State government officers and office-holders. In this manner, a critique of the ‘success’ of present growth management policies, and ideas for reform, is constructed. Relevant State government level policies examined in this chapter include the Sydney Metropolitan Strategy and regional strategic planning, urban growth boundaries and Sydney’s Growth Centres, biodiversity certification, biobanking, land use zoning and the Standard Instrument, conservation covenants, transferrable development rights, and catchment planning and management. In some sections of this chapter, the discussion of various tools is unavoidably interlinked. This is particularly the case with biodiversity certification and biobanking, reflecting the fact that these have become closely entwined tools for biodiversity conservation in NSW.



Consistent with the title and premise of this thesis – *Beyond regulation* – an underlying theme of this and the next chapter is that regulatory approaches alone are not sufficient to ensure the planning and management of Sydney’s growth from a natural resource conservation and environmental protection perspective. This point was made clearly during interviews conducted for the thesis:

“One of the key things I was going to say in looking at the Sydney scenario – noticing your title *Beyond regulation* – one of the things I wanted to say as an introductory comment is that I believe that the scale of the dollars involved in Sydney are too large to make regulation, regulatory approaches, effective. What I’m driving at is that it just becomes a cost of development, because as a total proportion of development costs its relatively small ... it doesn’t work because you can build the costs in ... but the only place that it becomes a problem is with timelines – the impact of regulatory approaches on time scales ...”<sup>1</sup>

An important contextual factor to be taken into account in this consideration of State level urban growth management initiatives is the ongoing reform of the NSW statutory planning system, a process which has been ebbing and flowing since 1997.<sup>2</sup> Some of these reforms relate directly to the planning and management of Sydney such as *State Environmental Planning Policy (Sydney Region Growth Centres) 2006* (‘the Growth Centres SEPP’).<sup>3</sup> Other reforms of broader State-wide application – such as 2005 amendments to the *Environmental Planning and Assessment Act 1979*<sup>4</sup> which laid the statutory basis for the creation of a standardized local environmental plan – also have direct significant implications for urban growth management in the Sydney Region. Problems of biodiversity conservation and the comparative success of catchment management in the Sydney Region are also considered in detail.

## 7.2 Strategic land use planning

Several key aspects of the Sydney Metropolitan Strategy *City of Cities* were summarized and briefly discussed in Chapter 5. The purpose of the present analysis is to specifically focus on those elements of metropolitan and regional planning pertinent to managing the growth of

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<sup>1</sup> Interview with Tom Grosskopf, Director, Vegetation and Land Management, Department of Natural Resources; Board Member, Nature Conservation Trust of NSW (Parramatta, 28 February 2007).

<sup>2</sup> Williams, P., ‘‘New’’ planning reform package for NSW – the road goes ever on’ (2005) 3(5) *Local Government Reporter*, 85-91.

<sup>3</sup> *State Environmental Planning Policy (Sydney Region Growth Centres) 2006*; gazetted 28 July 2006.

<sup>4</sup> *Environmental Planning and Assessment Amendment Act 2005* (NSW) No 43 assented to 16 June 2005.



Sydney from the perspective of assessing the extent of integration of strategic land use planning with natural resource management and environmental protection.

An important issue raised in several interviews with both State and local government officers was the need to properly manage Sydney's urban footprint by resisting pressure for premature or unplanned urban releases. This situation has necessitated investigating and responding to calls by landowners and developers for the urbanization of lands outside areas designated in the Metropolitan Development Plan and the two growth centres. Targets of such lobbying have been both elected representatives and officers at State and local government level.

### **7.2.1 The Metropolitan Strategy and subregional planning**

A major component of the Sydney Metropolitan Strategy is the North West and South West Growth Centres. In June 2005, plans comprising *Managing Sydney's Growth Centres* were placed on exhibition.<sup>5</sup> Rezoning of land for the Growth Centres is proceeding through the Growth Centres SEPP. Specifically, each development precinct in the Growth Centres is being rezoned as a schedule to the SEPP, rather than the traditional avenue of rezoning through an LEP. This is being executed utilizing the zones and controls in the Government's *Standard Instrument (Local Environmental Plans) Order 2006* (the 'Standard LEP' or 'Standard Instrument'),<sup>6</sup> so that eventually once the urban development process is underway in each precinct, the relevant provisions will be transferred from the SEPP and inserted into each local councils' comprehensive standardized LEP.<sup>7</sup> Riparian zones for example were identified in the North West and South West Structure Plans, which were devised by the Department of Planning as part of the Metropolitan Strategy. The riparian corridors are zoned E2 Environmental Conservation or E3 Environmental Management under the Standard LEP. In the South West Growth Centre however Camden Council, not satisfied with the level of protection afforded by this zoning, has decided to assume ownership of the significant South Creek riparian corridor. Under a series of voluntary planning agreements,

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<sup>5</sup> Department of Planning, *Managing Sydney's Growth Centres*, (Sydney, DoP, 2005), <http://www.metrostrategy.nsw.gov.au/WhatsNew/2005/ManagingSydneyGrowthCentresGeneralInforma/tabid/221/language/en-AU/Default.aspx>, viewed 16 August 2011.

<sup>6</sup> *Standard Instrument (Local Environmental Plans) Order 2006*; gazetted 31 March 2006.

<sup>7</sup> Interview with Bruce Colman, Precinct Manager, Sydney Growth Centres (Parramatta, 6 July 2007).



developers will dedicate the creek free to Council instead of paying monetary contributions under Council's Section 94 Contribution Plan.<sup>8</sup>

As briefly discussed in Chapter 5, the role of the ten subregional strategies produced for the Sydney region is to translate the broad brush principles and objectives set out in the Metropolitan Strategy, so that these can be delivered on the ground through councils' LEPs. Efforts to incorporate natural resource and environmental data into regional planning in the Sydney region via the subregional strategies have not been realised however. In part, this was due to a reluctance by relevant authorities to commit themselves to definitive enunciation (through publicly-available mapping) of areas of high conservation value, in light of the back flip by the Minister for Planning on the Growth Centres green zones in 2006.<sup>9</sup> Unintended consequences of this lack of information have been, first, the production of deficient subregional strategies lacking in detail on natural resource and environmental issues, and thus second, the continuing characterization of a planning system relying on implementation through individual development consents and decisions rather than evidence-based strategic planning. The unavoidable result of this situation has been the ongoing loss of high value conservation and natural resource lands in the Sydney Region through a process of 'death by a thousand cuts' caused by the assessment of planning and environmental impacts on a very small level rather than grounding planning in a strategic perspective which, inter alia, incorporates cumulative effects of development proposals.<sup>10</sup>

### **7.2.2 Maintaining urban growth boundaries and Sydney's Growth Centres**

'The containment of Sydney's urban footprint' is an 'action' (*Action 3.1*) of the Metropolitan Strategy.<sup>11</sup> It is one of several actions identified for the implementation of *Objective E3* ('Achieve sustainable use of natural resources') of *City of Cities*. Specifically, *Action 3.1* states that:

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<sup>8</sup> Interview with Bruce Colman, Precinct Manager, Sydney Growth Centres (Parramatta, 6 July 2007).

<sup>9</sup> Interview with Don Geering, formerly with NSW Department of Planning (Sydney, 3 August 2007).

<sup>10</sup> Interview with Don Geering, formerly with NSW Department of Planning (Sydney, 3 August 2007).

<sup>11</sup> See *Part E: Environment and Resource Strategy*, in Department of Planning, *City of Cities, A Plan for Sydney's Future*, (Sydney, DoP, 2005),

[http://www.metrostrategy.nsw.gov.au/dev/uploads/paper/environment/attachments/Environment\\_Strategy.pdf](http://www.metrostrategy.nsw.gov.au/dev/uploads/paper/environment/attachments/Environment_Strategy.pdf), viewed 29 December 2010.



“In order to contain Sydney’s urban footprint and minimise Sydney’s environmental footprint, the amount of land used for urban development must be balanced with the many other land use values of the region.

The competing land uses and values are:

- urban uses such as residential, open space, employment and transport lands;
- rural lands such as agricultural, rural residential housing and extractive industries; and
- conservation lands such as flood prone land, biodiversity conservation reserves, scenic landscapes and national parks.”<sup>12</sup>

This action is, however, qualified by a ‘sub-action’ (E3.I.2) which permits the State Government to “apply sustainability criteria for new development outside of the identified growth centres.” Elaborating this qualification, the sub-action states that “no new land will be released outside of the identified growth centres unless it *substantially* (emphasis added) meets strict sustainability criteria.”<sup>13</sup> This qualification of ‘substantial compliance’ with a range of sustainability criteria (most of which are not related to environmental or natural resource factors) clearly undermines any sense of inviolability of Sydney’s growth boundaries, and hence urban containment, over the life of its current strategic plan.<sup>14</sup> In an operational sense, the sustainability criteria therefore form the basis for decision making on the addition of new land to the Metropolitan Development Program (MDP) outside the Growth Centres.<sup>15</sup>

Since the publication of *City of Cities* in December 2005 the potential for undermining the Growth Centres plan has been evident in the form of developer pressure for land releases for urban development *outside* the designated growth centres. Arguably, ambivalence within the *City of Cities* document itself has provided an incentive – or loophole – for developers to seek further urban land releases. *City of Cities* recognizes two additional types of non-urban areas as potentially suitable for urbanization, subject to meeting sustainability and infrastructure requirements: first, land not in the growth centres but part of the Metropolitan Development

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<sup>12</sup> Department of Planning, *City of Cities, A Plan for Sydney’s Future*, (Sydney, DoP, 2005), [http://www.metrostrategy.nsw.gov.au/dev/uploads/paper/environment/attachments/Environment\\_Strategy.pdf](http://www.metrostrategy.nsw.gov.au/dev/uploads/paper/environment/attachments/Environment_Strategy.pdf), viewed 29 December 2010, p 217.

<sup>13</sup> Ibid, p 217.

<sup>14</sup> The sustainability criteria for new land releases are contained in Table G2 in the Implementation and Governance Strategy of *City of Cities* (at p.262) and comprise the following threshold criteria for listing on the MDP: 1. Infrastructure provision; 2. Access; 3. Housing diversity; 4. Employment lands; 5. Avoidance of risk; 6. Natural resources; 7. Environmental Protection; and 8. Quality and equity in services.

<sup>15</sup> Department of Planning, above n 12, p 217.



Program (MDP), and second, land neither in the growth centres or the MDP.<sup>16</sup> In particular, not long after the release of *City of Cities* one major development company with extensive land holdings in the Macarthur South/Appin area south of Sydney actively lobbied the NSW State Government for this land to be added to Sydney's release areas.<sup>17</sup> This is part of an area investigated for urbanization under the 1988 Sydney metropolitan strategy *Sydney Into Its Third Century*,<sup>18</sup> but subsequently deferred due to water and air pollution problems.<sup>19</sup> There are concerns that such a release would undermine the viability of the two growth centres,<sup>20</sup> while opening up a major new development front would be inconsistent with a fundamental component of *City of Cities* of limiting Sydney's urban expansion to 2031 to the designated growth centres – and so hasten the urbanization of the Sydney basin. Following initial consideration, the Government announced in July 2009 the deferral of further investigation of Macarthur South as: (i) its development was unviable due to prohibitive infrastructure costs,<sup>21</sup> (ii) existing adequate stocks of land were available for housing in the South West Growth Centre, and (iii) the high value of coal resources in the area.<sup>22</sup> This realization provides cold comfort however for those in State and local government in NSW seeking to protect Sydney from the adverse effects of its own growth.<sup>23</sup>

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<sup>16</sup> "There are areas outside the growth centres identified for investigation for land release in the Government's Metropolitan Development Program (MDP) with the potential to provide an additional 60,000 lots. The rezoning of these lands will be subject to the same sustainability criteria and require the same coordination of infrastructure as the growth centres ... Proposals for urban development outside of these identified areas will be expected to have exceptional environmental performance and not require major infrastructure. Such proposals will be considered on their merits and subject to substantially meeting the same sustainability criteria." See: NSW Department of Planning, *City of Cities – A Plan for Sydney's Future*, above n 12, p 134.

<sup>17</sup> Frew, W. and Snow, D., 'Developers push into fringeville', *Sydney Morning Herald*, (Sydney), 29 November 2008, p.11; interview with Ray Fowke, Metropolitan Branch, Department of Environment and Climate Change, (Parramatta, 20 August 2007); interview with Andrew Watson, Regional Planning Coordinator, Western Sydney, Department of Planning, (Parramatta, 16 August 2007).

<sup>18</sup> NSW Department of Planning, *Sydney into its Third Century: Metropolitan Strategy for the Sydney Region*, (Sydney, DoP, 1988).

<sup>19</sup> See: NSW Department of Planning, *Sydney's Future. A Discussion Paper on Planning the Greater Metropolitan Region*, (Sydney, DoP, 1993); Holliday, S., 'Metropolitan Planning and Demography: Sydney as a Case Study', in R. Freestone (ed) *The Twentieth Century Urban Planning Experience*, (Sydney, Faculty of the Built Environment, University of New South Wales, 1998); Sydney; Vipond, J., 'Regional Planning in NSW', *Australian Planner* (2001) 38(3/4), pp 121-127.

<sup>20</sup> Interview with Andrew Watson, Regional Planning Coordinator, Western Sydney, Department of Planning (Parramatta, 16 August, 2007).

<sup>21</sup> Keneally, The Hon Kristina, MP, 'Planning Starts For New Housing and Employment Land in Sydney', (Media Release, 22 July 2009).

<sup>22</sup> NSW Department of Planning, *Metropolitan Plan for Sydney 2036*, (Sydney, DoP, 2010) [http://www.metroplansydney.nsw.gov.au/portals/0/pdf/METRO2036\\_F\\_BALANCING\\_LANDUSE.pdf](http://www.metroplansydney.nsw.gov.au/portals/0/pdf/METRO2036_F_BALANCING_LANDUSE.pdf), accessed 27 December 2010, p 162.

<sup>23</sup> It should be pointed out that similar challenges are facing other Australian cities. For example, the recent and controversial expansion of Melbourne's urban growth boundary into its 'green wedge' areas has strong parallels with the Sydney situation. See: Buxton, M. and Goodman, R., *Maintaining Melbourne's Green Wedges. Planning policy and the future of Melbourne's green belt*, (School of Social Science and Planning, RMIT



WSROC argued the case in *Future West* for the establishment of an urban growth boundary or “urban/rural edge”<sup>24</sup> – drawing a line around the urban area of Sydney – to be effective until at least 2019. This boundary was designed to stop the loss of agricultural land and to provide a framework to handle the transition lands at the urban fringe between urban and agricultural development.<sup>25</sup> Such land should not be treated as ‘urban-land-in-waiting’, which is an uneconomic way of treating land since there is no investment in it as a consequence of this potential ‘planning blight’. Rather, this transition land should be recognized as having its own ‘value’ – including economic value as agricultural land, landscape and rural heritage value, as well as having enhanced environmental and biodiversity value if considered for carbon and biodiversity offsets schemes. WSROC advocated that the urban/rural edge

“...should allow for further moderate urban expansion in the North-West and South-West with a western urban limit along South Creek in the northern areas of the region and Kemps Creek in the southern expansion area. Lands outside this line and associated transition area would have a number of long-term values including:

- Retention of high-class agricultural/horticultural soils, particularly in the Hawkesbury/Nepean River flood plain;
- Preservation of rural character and identity, providing a tangible link to the past in areas such as Camden, Hawkesbury and Penrith;
- Retention of areas with high scenic value or strong cultural associations; and
- Provision of opportunities for a diversity of lifestyle opportunities in rural locations on larger lots.”<sup>26</sup>

Although the Department of Primary Industry was able to extract some acknowledgment of the desirability of promoting sustainable agriculture in *City of Cities*,<sup>27</sup> more specifically a

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University, December 2002); Buxton, M. and Scheurer, J., ‘Density and Outer Urban Development in Melbourne’ (2007) *Urban Policy and Research* 25(1), pp 91-111.

<sup>24</sup> Western Sydney Regional Organisation of Councils Ltd, *Future West*, Final Report, (Blacktown, WSROC, 2005), p 72.

<sup>25</sup> Interview with Sharon Fingland, Assistant Director, Western Sydney Regional Organisation of Councils (WSROC) (Blacktown, 13 August 2007).

<sup>26</sup> Western Sydney Regional Organisation of Councils Ltd, above n 24, p 72.

<sup>27</sup> The *Metropolitan Plan for Sydney 2036*, the five-year review of *City of Cities* released in December 2010, contains as one of its Strategic Directions ‘Balancing land uses on the city fringe’. One of the proposed actions identified to achieve this Strategic Direction is the consideration of development of an agricultural policy for Sydney. “An agricultural policy will highlight the importance of local food production, to maintain a reliable supply of food close to market and support the economic significance of the industry in Sydney. It would provide guidance for decision-makers on all aspects of the food system. It will aim to guide land use planning to provide greater certainty for the growth of agriculture in Sydney. An agriculture policy for Sydney will encourage the planning system to support local producers through policy making that allows businesses to develop best practices to respond to environmental and consumer demands.” See: NSW Department of Planning, *Metropolitan Plan for Sydney 2036*, (Sydney, DoP, 2010),



strategic plan for agriculture in the Sydney Region is required.<sup>28</sup> The Metropolitan Strategy also seeks to limit the extent of greenfield development, with an emphasis on consolidating existing urban areas. Clearly however, the traditional regulatory/zoning measures alone are not working in Sydney, as good agricultural land is being fragmented – broken into smaller holdings – and eventually urbanized, as politically the provision of more housing is deemed preferable to retention of agricultural land.<sup>29</sup> In terms of retention of agricultural production – if not remaining agricultural land – in Sydney, one solution appears to lie in the *integration of agriculture into urban design*, similar to the situation in parts of Europe such as The Netherlands where agriculture is seen as part of urbanization.<sup>30</sup> The potential solution of integrating agriculture into the urban fabric – of urban agriculture – has not yet been grasped in Australia, and can only be achieved by working with the development industry.<sup>31</sup> Advocates of more ‘radical’ ideas such as the need to integrate agricultural production and biodiversity conservation on private lands (including suburban backyards) argue that there are bountiful, unsung success stories of such integration across substantial tracts of the urban landscape in countries like the UK and Australia.<sup>32</sup> Included in this approach is the view that relatively unrestrained, low density urban sprawl fuelled by the development sector should be recognized as the norm in Australia, and that new ways of incorporating agricultural production and biodiversity preservation within this framework is required.<sup>33</sup>

Regulatory controls nevertheless continue to play an important role in determining Sydney’s boundaries through the maintenance of rural or agricultural zones, and the Department of Primary Industry has an ongoing role to advise local councils when they are considering rezoning proposals. As councils in NSW progress through the process of preparing new

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[http://www.metroplansydney.nsw.gov.au/portals/0/pdf/METRO2036\\_F\\_BALANCING LANDUSE.pdf](http://www.metroplansydney.nsw.gov.au/portals/0/pdf/METRO2036_F_BALANCING LANDUSE.pdf),

accessed 27 December 2010, p.164.

<sup>28</sup> Interview with Andrew Docking, Resource Management Officer, Department of Primary Industry (Richmond, 25 June 2007).

<sup>29</sup> Interview with David Mason, Leader, Urban Agriculture, Department of Primary Industry (Richmond, 25 June 2007).

<sup>30</sup> Interview with David Mason, Leader, Urban Agriculture, Department of Primary Industry (Richmond, 25 June 2007).

<sup>31</sup> Interview with David Mason, Leader, Urban Agriculture, Department of Primary Industry (Richmond, 25 June 2007).

<sup>32</sup> Blazey, C., *The Australian Vegetable Garden: What’s New is Old*, (Frenchs Forest, NSW, New Holland, 2<sup>nd</sup> ed., 2012).

<sup>33</sup> Holmgren, D., *Permaculture: Principles & Pathways Beyond Sustainability*, (Hepburn, Victoria, Holmgren Design Services, 2002); Holmgren, D., ‘Weeds or wild nature: a permaculture perspective’ (2011) 26(3) *Plant Protection Quarterly* 92; Holmgren, D., *Retrofitting the Suburbs for the Energy Descent Future*, (Simplicity Institute Report 12i, 2012), <http://simplicityinstitute.org/wp-content/uploads/2011/04/RetrofittingTheSuburbsSimplicityInstitute1.pdf>, accessed 23 January 2013.



LEPs in accordance with the Standard Instrument, advice tabled by the Department of Primary Industry regarding the content of zone provisions to be incorporated into these LEPs has focused on ensuring compatibility of land uses, and therefore reducing the potential for land use conflict, in order to help ensure more security and investment for agricultural development.<sup>34</sup> A fundamental problem however, is that zoning land for agriculture or conservation does not necessarily offer security. Plans can easily be changed – and often are – which of course provides the impetus for ongoing land speculation and landowners' expectations of inexorable urbanisation.<sup>35</sup>

### 7.2.3 Regional Strategies

Strategic planning of areas around Sydney, but beyond the geographic extent of *City of Cities*, has been undertaken through a series of regional strategies. Regional strategies for many areas of NSW were released by the Department of Planning in 2006 and 2007. Regional strategies applicable to the growth management of Sydney include strategies for the Central Coast, the Lower Hunter, and the South Coast. A major deficiency in the formulation of regional strategies has been the general failure of DECCW in consultation with DoP to prepare accompanying regional conservation plans (RCPs). RCPs are meant to be linked to the EPI making process through the regional strategies for the purposes of biodiversity certification (discussed further below).<sup>36</sup> Yet only the Lower Hunter Regional Strategy was accompanied by a draft RCP, released in October 2006, which comprises a 25 year conservation program.<sup>37</sup> At time of writing, the Lower Hunter Regional Conservation Plan had not been finalised however. Similar concerns have been expressed in relation to the South Coast Regional Strategy, where its regional conservation plan had not been completed, yet in accordance with a Ministerial Direction under s.117 of the EP&A Act,<sup>38</sup> local councils

<sup>34</sup> Interview with Andrew Docking, Resource Management Officer, Department of Primary Industry (Richmond, 25 June 2007).

<sup>35</sup> See: Archer, R.W., 'Land speculation and scattered development; failures in the urban fringe land market' (1973) 10 *Urban Studies* 367-372; Sandercock, L., *The Land Racket*, (Canberra, Silverfish Books, 1979); Daly, M.T., *Sydney Boom Sydney Bust*, (Sydney, George Allen & Unwin, 1982).

<sup>36</sup> See: Department of Environment and Climate Change, *Working Draft Guidelines for Biodiversity Certification of Environmental Planning Instruments*, (Parramatta, DECC, 2007); Connolly, I. and Fallding, M. 'Biocertification of local environmental plans – promise and reality', (2009) 26 *Environmental and Planning Law Journal* 128.

<sup>37</sup> Department of Environment and Conservation, *Draft Lower Hunter Regional Conservation Plan*, (Parramatta, DECC, October 2006), <http://www.environment.nsw.gov.au/resources/2006053hunter.pdf>, viewed 13 April 2011.

<sup>38</sup> Department of Planning, *Section 117 Ministerial Directions. Direction No.30 – Implementation of Regional Strategies*, published 4 April 2007, [http://www.planning.nsw.gov.au/planningsystem/pdf/circulars/s117\\_no30\\_regstrat.pdf](http://www.planning.nsw.gov.au/planningsystem/pdf/circulars/s117_no30_regstrat.pdf), viewed 13 April 2011.



were to proceed with preparing their new Standard Instrument LEPs based on the regional strategies and their supporting documentation.<sup>39</sup> In the absence of RCPs, developers and councils have unfortunately had to “work out complex flora and fauna issues on a site-by-site basis, with little regional context.”<sup>40</sup>

## 7.3 Biodiversity certification

To date, the record of biodiversity certification in NSW has been uninspiring. DECCW and DoP for example abrogated a major role in implementing biodiversity certification by failing to prepare, with the exception of a draft for the Lower Hunter, regional conservation plans for regional strategies across NSW. This is a significant omission as the RCPs, to be incorporated into the regional strategies, were to constitute the baseline investigations necessary for subsequent biodiversity certification of EPIs produced in accordance with those strategies. This represented the loss of the opportunity to implement biodiversity certification by linking, through the regional strategies, RCPs to the EPI making process. As a consequence, although the regional strategies “include general objectives to conserve biodiversity through land-use planning, they provide little instruction to local government to facilitate the biodiversity certification process.”<sup>41</sup> It was intended that, by establishing “the necessary conservation context within which more detailed local assessments can be undertaken and planning decisions made with confidence”,<sup>42</sup> subsequent EPIs that sought to maintain or improve long term biodiversity values might “merit certification.”<sup>43</sup> Failure to prepare RCPs appears to have irrevocably constrained the possibility of achieving biodiversity certification of LEPs produced from the regional strategies. Further undermining any attempt to link strategic planning, statutory land use plans and biodiversity conservation was the amendment to the TSC Act in 2010, discussed in Chapter 6. Prompted by the delay in making EPIs caused by the time spent in having biodiversity certification resolved, the amended TSC Act now confers certification on specified land rather than EPIs.<sup>44</sup>

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<sup>39</sup> Interview with Gordon Clark, Strategic Planning Manager, Shoalhaven City Council (Nowra, 13 April 2007).

<sup>40</sup> Department of Planning, *Central Coast Regional Strategy*, (Sydney, New South Wales Government, 2006), p 33, [http://www.planning.nsw.gov.au/plansforaction/pdf/central\\_coast\\_regional\\_strategy.pdf](http://www.planning.nsw.gov.au/plansforaction/pdf/central_coast_regional_strategy.pdf), viewed 16 August 2011.

<sup>41</sup> Connolly, I. and Fallding, M. ‘Biocertification of local environmental plans – promise and reality’, (2009) 26 *Environmental and Planning Law Journal* 128 at 137.

<sup>42</sup> Department of Environment and Climate Change, above 36, p 2.

<sup>43</sup> Department of Environment and Conservation, n 37, Executive Summary.

<sup>44</sup> Section 126H of the *Threatened Species Conservation Act 1995*, as inserted by the *Threatened Species Conservation Amendment (Biodiversity Certification) Act 2010*.



### 7.3.1 Biodiversity certification and the Growth Centres

Significantly, the first EPI to receive biodiversity certification in NSW was *State Environmental Planning Policy (Sydney Region Growth Centres) 2006* which contains the main statutory planning controls for the two Sydney Growth Centres.<sup>45</sup> It is estimated that there will be a loss of 1,867 hectares (ha) of high or medium quality native vegetation across the total development area of 20,350 ha constituting Sydney's Growth Centres.<sup>46</sup> It is anticipated that 1,999 hectares of high or medium condition native vegetation will be specifically protected from loss within the Growth Centres by a range of measures (Map 7.1 and Map 7.2 refer). Measures for retention of these 'protected lands' are (a) Protection through SEPP zoning (643 ha); (b) Development control through SEPP (i.e. either 'Flood prone and major creeks', or environmentally constrained 'Transitional Land') (880 ha); and (c) Protected through existing reservation or zoning (476 ha).<sup>47</sup> However, the claim of 1,999 ha being protected under the Growth Centres development is thus somewhat misleading, as 476 ha (24%) of protected lands are already protected under existing reservation or zoning (refer Table 7.1). A further 880 ha cannot be developed in any event – it is either designated as 'flood prone and major creeks' (754 ha) or 'Transitional Land' (126 ha).

Biodiversity "certification also provides \$530 million (at 2005/2006 values) through mechanisms such as developer contributions to purchase areas of high conservation value or to enter into private conservation agreements both within and outside the Growth Centres."<sup>48</sup> This fund will be used in part to purchase some of the 'protected lands' identified under the Growth Centres Conservation Plan. Nonetheless, the Growth Centres Conservation Plan outlines planning and offsetting proposals which are mainly outside the development area of the Growth Centres as part of the biocertification process.<sup>49</sup> Part of the reason for this is to use the developer contributions and conservation agreements with interested landowners to secure the larger vegetated remnants left in Sydney that have greater prospects of being

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<sup>45</sup> Conferred on 14 December 2007 by the Minister Assisting the Minister for Climate Change, Environment and Water (Environment) under section 126G of the *Threatened Species Conservation Act 1995*. See Department of Environment, Climate Change and Water, *Notices of biodiversity certification*, (Sydney, DECCW, 2009), <http://www.environment.nsw.gov.au/biocertification/notcert.htm>, viewed 11 August 2009. LEPs for Wagga Wagga and Albury have also received biodiversity certification.

<sup>46</sup> Growth Centres Commission, *Growth Centres Conservation Plan: Exhibition Draft*, (Parramatta, GCC, February 2007), p 2, <http://www.gcc.nsw.gov.au/media/Pdf/draftexhenvplan.pdf>, viewed 9 July 2010.

<sup>47</sup> Ibid, p 16.

<sup>48</sup> Growth Centres Commission, above n 46, p 2.

<sup>49</sup> Ibid, p 2.



viable biodiversity conservation areas in the longer term, rather than acquiring every individual small pocket of endangered vegetation which may be surrounded by intensive urban development and so are unlikely to be viable into the future.<sup>50</sup> However “the quid pro quo for that is that certain lands with biodiversity values get turned into urban areas within the Growth Centres but the floodplains and the riparian zones all get kept as they are within the Conservation Plan.”<sup>51</sup>

**Table 7.1: Sydney's Growth Centres – Protected Lands**

Protection Mechanism	Category	Location	Area (ha)	Total High Quality Vegetation (ha)*
Protection through SEPP Zoning	Environment Conservation	Marsden Park	49	41
		Riverstone South	35	31
		Shane's Park	550	388
	Public recreation – Regional	Shanes Park East	60	44
		Kemps Creek East	42	27
		Kemps Creek West	40	30
		Rileys Creek	96	64
	Public recreation – Local	Riverstone North	24	18
Development Control through SEPP	Flood Prone and Major Creeks		4,048	754
	Transitional Land	North Kellyville	126	21
		Lowes Creek	249	105
Protected through Existing Reservation or Zoning	South Creek Park	Liverpool Council Park zoned 6(b) at South Creek	80	4
	Kemps Creek Nature Reserve	Kemps Creek	131	121
	Rouse Hill Regional Park	Rouse Hill	63	15
	M7 / Western Sydney Orbital Offsets**	Colebee	52	41
		Kemps Creek	31	17
		Rouse Hill	2	2
	Edmondson Park	8(b) Zoned Lands in Liverpool & Campbelltown LGAs, including “Environmentally significant lands”	151	103
	SREP31	Western Sydney Parklands	1,508	173
	<b>Total</b>		<b>7,337</b>	<b>1,999</b>

\*Native vegetation communities in good condition, excludes scattered trees where canopy is less than 10%.

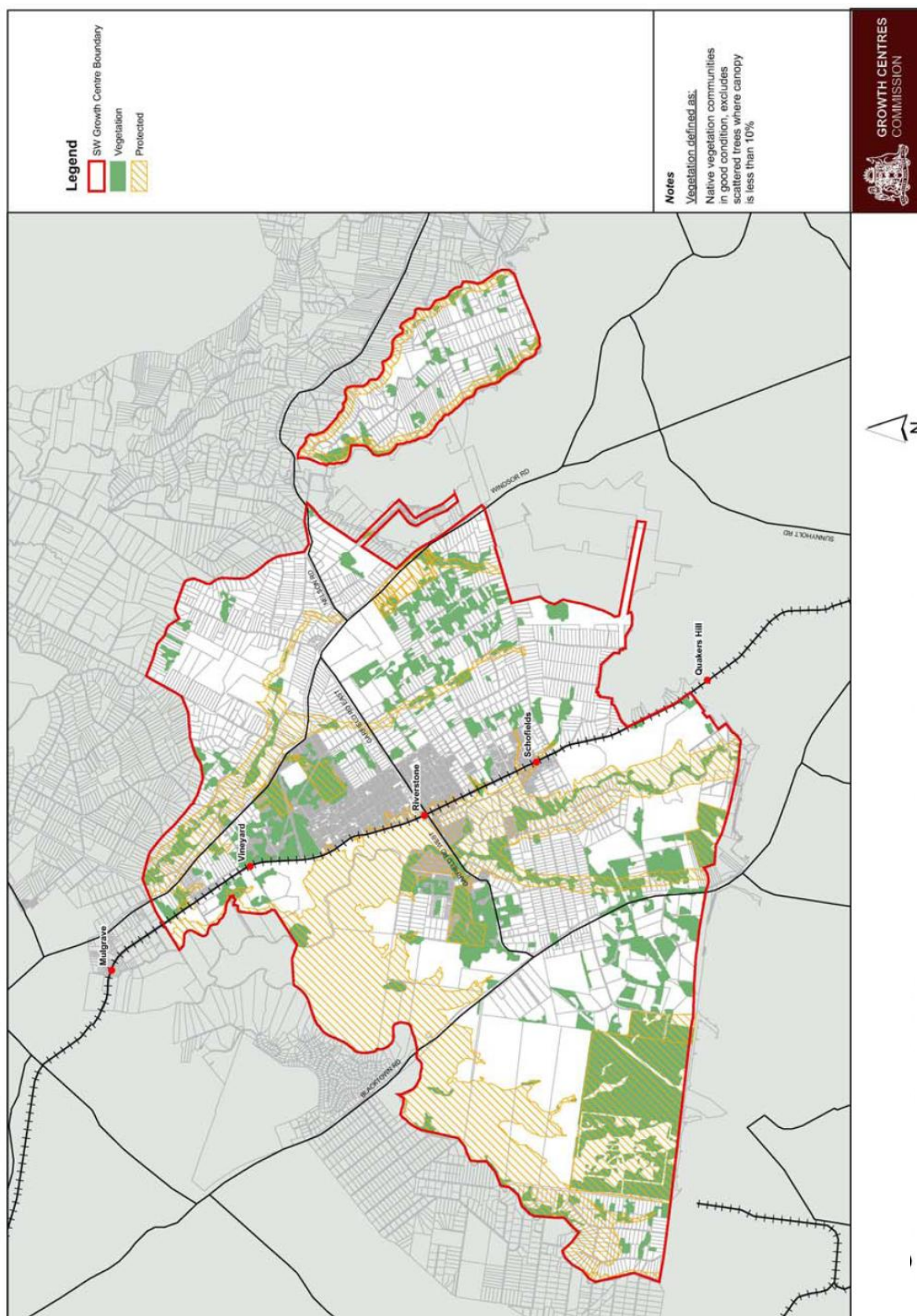
\*\* Lands to be reserved by DEC to offset native vegetation cleared for development of the M7 / Western Sydney Orbital.

Source: Growth Centres Commission, *Growth Centres Conservation Plan: Exhibition Draft*, (Parramatta, GCC, February 2007), Table 4, p.16.

<sup>50</sup> Interview with Ray Fowke, Metropolitan Branch, Department of Environment and Climate Change, 20 August 2007.

<sup>51</sup> Interview with Bruce Colman, Precinct Manager, Sydney Growth Centres (Parramatta, 6 July 2006).

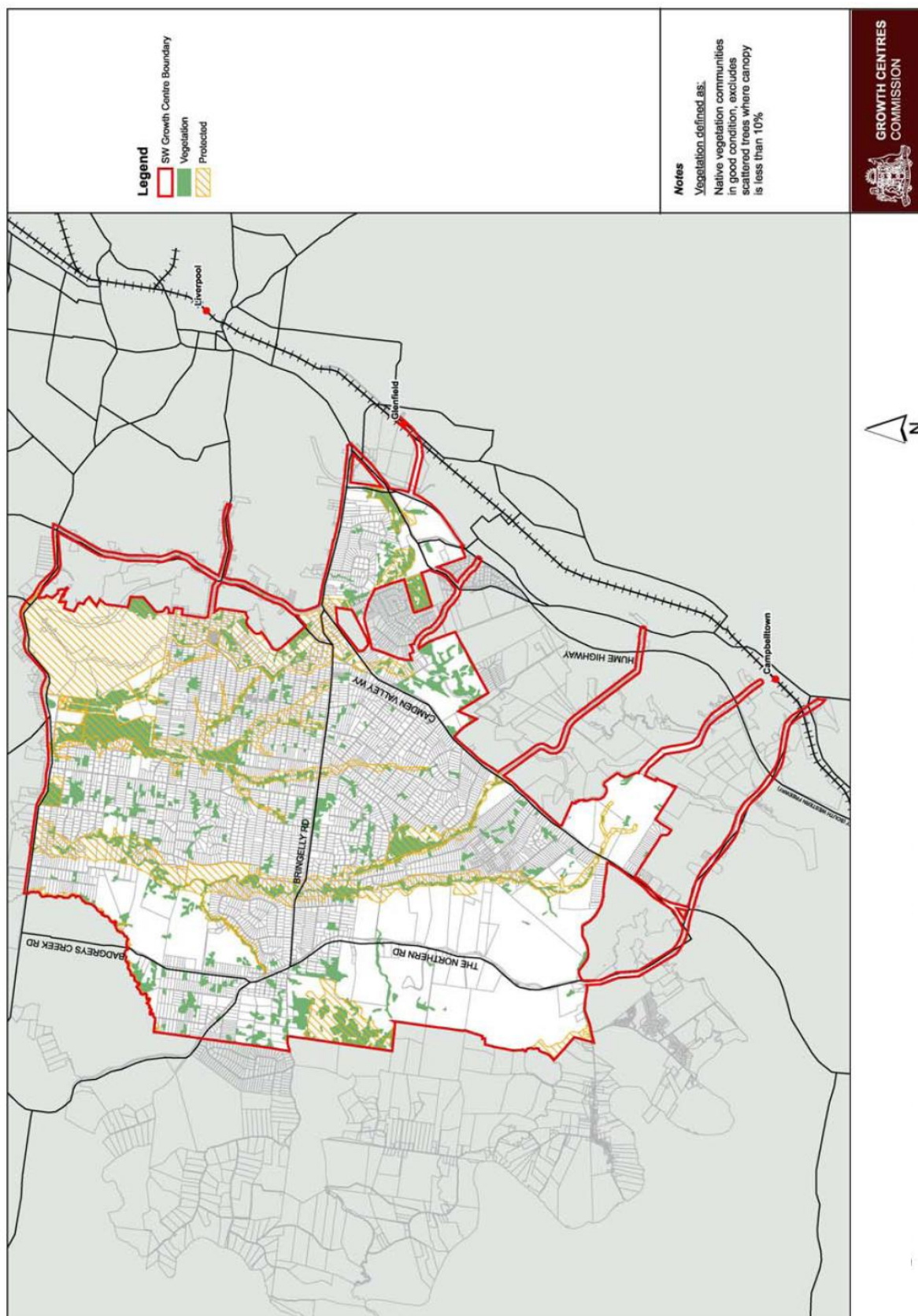




Map 7.1: North West Growth Centre – Protected Lands

Source: Growth Centres Commission, *Growth Centres Conservation Plan: Exhibition Draft* (Parramatta, GCC, February 2007), Figure 4, p.18





Map 7.2: South West Growth Centre – Protected Lands

Source: Growth Centres Commission, *Growth Centres Conservation Plan: Exhibition Draft* (Parramatta, GCC, February 2007), Figure 5, p.19



Certification of the Growth Centres SEPP and the Conservation Plan upon which its certification is based has been subject to some adverse comment.<sup>52</sup> The Environmental Defenders Office (EDO)) has strongly criticized biocertification of the SEPP and the Conservation Plan, believing that their conservation targets need to contribute to broader regional biodiversity objectives that are not evident in the plan.<sup>53</sup> Further concern has arisen particularly in relation to the requirement of improving or maintaining biodiversity values. A key undertaking in the process of certifying plans is that the DECCW and the Minister must consider whether the plan and its implementation meet the objective to improve and maintain biodiversity values. Here, deficiencies such as inadequate criteria to define “improve and maintain values”, contradictions in the operation of offsetting, and paucity of assessment of the cumulative impacts of the SEPP on biodiversity, were evident in the certification process.<sup>54</sup> The Conservation Plan recognizes that in its early years the offsetting process will not match the rate of impacts, which may only be offset at the end of the 30 year period of development in the Growth Centres.<sup>55</sup> Not surprisingly, judicial review proceedings challenging the validity of biodiversity certification of the Growth Centres SEPP was commenced in March 2008.<sup>56</sup> The challenge was based on the grounds that “biodiversity certification was granted prematurely and based on inadequate information.”<sup>57</sup> Legal action was discontinued when the NSW Parliament passed the *Threatened Species Conservation Amendment (Special Provisions) Act 2008*.<sup>58</sup> This special legislation did not validate the original decision of the Minister to grant biodiversity certification (by an order published in the Gazette), but rather effected an alternative means of conferring biodiversity certification on the Growth Centres SEPP by inserting a new part to the *Threatened Species Conservation Act 1995*.<sup>59</sup>

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<sup>52</sup> Connolly, I. and Fallding, M., above n 41, p 142.

<sup>53</sup> Environmental Defender’s Office New South Wales, *Submission on the Draft Growth Centres Conservation Plan* (Sydney, EDO, 18 April 2007), [http://www.edo.org.au/edonsw/site/pdf/subs07/growth\\_centres\\_cp070418.pdf](http://www.edo.org.au/edonsw/site/pdf/subs07/growth_centres_cp070418.pdf), viewed 28 December 2010.

<sup>54</sup> Connolly, I. and Fallding, M. above n 41, pp 141-142.

<sup>55</sup> Growth Centres Commission, above n 46, p 24.

<sup>56</sup> The points of claim in this action related to alleged breaches and manifest unreasonableness in relation to former s.126G of the *Threatened Species Conservation Act 1995*.

<sup>57</sup> See: Environmental Defender’s Office New South Wales (Ltd), *Key EDO Cases – Archive, True Conservation Association Inc v Minister administering the Threatened Species Conservation Act 1995*, [http://www.edo.org.au/edonsw/site/casework\\_key\\_past.php](http://www.edo.org.au/edonsw/site/casework_key_past.php), viewed: 29 December 2010.

<sup>58</sup> Lyster, R. et.al., *Environmental & Planning Law in New South Wales*, 2<sup>nd</sup> edn., (Sydney, The Federation Press, 2009), pp 51-52.

<sup>59</sup> *Threatened Species Conservation Act 1995*, Part 7 of Schedule 7. As stated by the Preston CJ in the Land and Environment Court, the *Threatened Species Conservation Amendment (Special Provisions) Act 2008* did not directly validate the Minister’s order of 11 December 2007, “but rather effected an alternative means of



A further concern relates to potential non-compliance of the Growth Centres Conservation Plan with the hierarchy of biodiversity conservation apparent in the draft guidelines for biocertification prepared in 2007, namely: ‘prevention first, mitigation second, and offsets as a last resort’.<sup>60</sup> This draft management principle proposed by (the then) DECC for biocertification stated that “Impacts must be avoided by using prevention and mitigation measures. Offsets are then used to address remaining impacts.”<sup>61</sup> Placing this principle under closer scrutiny however, it appears that the avoidance-first concept is not absolute; otherwise there would be no role for offsets. Problematically, “it is not clear how extensive efforts need to be to avoid impacts, and at what stage offsets can be resorted to.”<sup>62</sup>

Additional concern over the uncertainty of the Growth Centres Conservation Plan has been expressed by the EDO:

“The success of the plan is particularly uncertain because the offset component is largely based on the availability of landowners willing to provide their land as offsets. No one yet knows what the price will be. The plan comprises a preliminary assessment that speculates on the availability and cost of suitable land.”<sup>63</sup>

The DECCW is, however, confident in this regard as the cost of protecting land outside the Growth Centres is significantly less than lands within the Growth Centres.”<sup>64</sup> An outcome of the high cost of land for offsets not only in the Growth Centres, but in the Sydney region, is that land acquisitions for offsetting and biocertification purposes may in fact occur outside the Sydney basin, as a greater amount of cheaper land can be acquired, thereby maximizing

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conferring biodiversity certification on the Growth Centres SEPP. This was achieved by inserting a new part, Pt 7 of Sch 7, in the *Threatened Species Conservation Act 1995*, which conferred biodiversity certification on the Growth Centres SEPP. The applicant’s judicial review challenge to the Minister’s order could theoretically still proceed and the court could determine it. However, there was no practical utility in doing so. Even if the court were to uphold the applicant’s challenge to the Minister’s order, biodiversity certification would still be conferred independently on the Growth Centres SEPP by the new Pt 7 of Sch 7 to the *Threatened Species Conservation Act 1995*. Hence, the practical effect of the legislation was to render the proceedings inutile.” (*True Conservation Association Inc v Minister administering the Threatened Species Conservation Act 1995* [2008] NSWLEC 221 at 7 and 8).

<sup>60</sup> Department of Environment and Climate Change, *Guidelines for Biodiversity Certification of Environmental Planning Instruments – Working Draft (Guidelines)* (Sydney, DECC, 2007) Appendix II – “Principles for the Use of Biodiversity Offsets in NSW”.

<sup>61</sup> *Ibid.*

<sup>62</sup> Robinson, D., ‘Strategic planning for biodiversity in New South Wales’, (2009) 26 *Environmental and Planning Law Journal* 213 at 222.

<sup>63</sup> Environmental Defender’s Office New South Wales, above n 53, p 3.

<sup>64</sup> Connolly, I. and Fallding, M., above n 41, p 142.



biodiversity outcomes.<sup>65</sup> This hypothesis is basically one of “Sydney is lost – save what is left in the rest of NSW”.

In this vein, in assessing the proposal to confer biodiversity certification on the Growth Centres SEPP, DECCW stated:

“The harsh reality is that the prospects for long-term survival of small remnants once surrounded by urban development are limited, given that there is little prospect that they could all be purchased and placed under public management or provided with sufficient funding in-perpetuity.”<sup>66</sup>

The only way in which remnant vegetation on private land in Sydney can be protected is not by the prohibitive cost of public acquisition, but rather through the politically challenging solution of requiring landowners to contribute to the cost of such protection, as a normal, traditional incident of the bundle of rights and *obligations* arising from land ownership. However, given that the decisions of the State Government to date in this area have been spectacularly weak in the face of entrenched property rights, the likelihood of requiring landowner responsibility for biodiversity protection is extremely remote – painting a very bleak picture for the survival of remnant vegetation in private ownership in the Sydney basin.

### 7.3.2 The prospects of biodiversity certification

Prior to February 2011, biodiversity certification was conferred on environmental planning instruments (EPIs) under Schedule 7 of the *Threatened Species Conservation Act 1995*. Only three EPIs had biodiversity certification conferred under these arrangements.<sup>67</sup> Biodiversity certification within the Sydney Region had, by early 2011, not extended beyond the Sydney Growth Centres.<sup>68</sup> Biodiversity certification had also been conferred on a part of Wagga

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<sup>65</sup> Interview with Ray Fowke, Metropolitan Branch, Department of Environment and Climate Change, 20 August 2007.

<sup>66</sup> Department of Environment and Climate Change, Western Sydney Growth Centres, *An Assessment of the proposal to Confer Biodiversity Certification on State Environmental Planning Policy (Sydney Region Growth Centres) 2006 under Section 126G of the Threatened Species Conservation Act 1995* (Sydney, DECC, 2007) p 26, <http://www.environment.nsw.gov.au/resources/nature/07589wsgcentres.pdf>, viewed 29 December 2010.

<sup>67</sup> Office of Environment and Heritage, *Register of orders for biodiversity certification*, (Sydney, OEH, 2011), <http://www.environment.nsw.gov.au/biocertification/notcert.htm>, viewed 16 August 2011.

<sup>68</sup> *State Environmental Planning Policy (Sydney Region Growth Centres) 2006*. The Growth Centres SEPP was gazetted in July 2006 and is effective until 30 June 2025. In December 2007 an order conferring biodiversity certification on the Growth Centres SEPP was made by the Minister for the Environment under section 126G of the TSC Act. In July 2008, the Minister's certification was validated by the *Threatened Species Conservation Amendment (Special Provisions) Act 2008*. The amendment is now incorporated into Part 7 of Schedule 7 of the TSC Act. The amendment essentially validates the certification and gives the Minister the power to suspend or



Wagga, under the *Wagga Wagga Local Environmental Plan 2010*,<sup>69</sup> and most of Albury under the *Albury Local Environmental Plan 2010*.<sup>70</sup> These two cities are relatively high growth rate regional centres situated in rural NSW. Interestingly proposed biodiversity certification over other large metropolitan, urban and coastal centres appears to be not as enthusiastically embraced at this stage, though Shoalhaven City Council has investigated biocertification of the high-growth Nowra-Bomaderry area, but has found some of the offset ratios being considered – in the order of 200:1 and 250:1 – quite unachievable.<sup>71</sup>

Following release of a draft in June 2010 for public comment, in February 2011 DECCW gazetted the *Biodiversity Certification Methodology* (the methodology),<sup>72</sup> as provided for under the new Part 7AA of the TSC Act.<sup>73</sup> Under these latest provisions, biodiversity certification may only be conferred on land where the Minister makes a determination, in accordance with the methodology, that the application for biodiversity certification will improve or maintain biodiversity values.<sup>74</sup> The role of the methodology is summarised as establishing

“... the circumstances in which conferring biodiversity certification on land is to be regarded as improving or maintaining biodiversity values. This includes circumstances where the impact of conferring biodiversity certification is offset by the gain in biodiversity values through undertaking conservation-based management of other land.”<sup>75</sup>

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revoke the certification if any of its conditions, now termed *relevant biodiversity measures*, are not complied with. See: Office of Environment and Heritage, *Register of orders for biodiversity certification*, (Sydney, OEH, 2011), <http://www.environment.nsw.gov.au/biocertification/notcert.htm>, viewed 16 August 2011.

<sup>69</sup> The Minister for Climate Change and the Environment made an order conferring biodiversity certification on the *Wagga Wagga Local Environmental Plan 2010* effective from the gazettal date of 24 December 2010 until 23 December 2020. The certification covers approximately 10,655 ha of the Wagga Wagga local government area that represents the current and future urban and industrial area around Wagga Wagga city. See Office of Environment and Heritage, *Register of orders for biodiversity certification*, (Sydney, OEH, 2011), <http://www.environment.nsw.gov.au/biocertification/notcert.htm>, viewed 16 August 2011.

<sup>70</sup> The Minister for Climate Change and the Environment made an order conferring biodiversity certification on the *Albury Local Environmental Plan 2010* effective from the gazettal date of 25 February 2011 until 24 February 2021. The certification covers almost the entire Albury local government area (LGA). A number of areas within the Albury LGA have, however, not been biodiversity certified, and these are shown in the order. See Office of Environment and Heritage, *Register of orders for biodiversity certification*, (Sydney, OEH, 2011), <http://www.environment.nsw.gov.au/biocertification/notcert.htm>, viewed 16 August 2011.

<sup>71</sup> Interview with Gordon Clark, Strategic Planning Manager, Shoalhaven City Council (Nowra, 13 April 2007).

<sup>72</sup> Department of Environment, Climate Change and Water, *Biodiversity Certification Assessment Methodology*, (2011), <http://www.environment.nsw.gov.au/resources/biocertification/110170biocertassessmeth.pdf>, viewed 22 March 2011.

<sup>73</sup> *Threatened Species Conservation Act 1995*, s.126S.

<sup>74</sup> *Threatened Species Conservation Act 1995*, s.126O.

<sup>75</sup> Department of Environment, Climate Change and Water, above n 72, p 1-2.



Although devised as a tool to assist biodiversity conservation at a landscape scale, concerns have been expressed in relation to the biodiversity certification methodology. Apprehension has been conveyed by the EDO for example, primarily in relation to the integrity of the ‘maintain or improve biodiversity values’ test. In a submission to DECCW, the EDO stated that:

“The proposed methodology relaxes the offsetting rules to such an extent that the legislative test becomes meaningless. The clauses in the draft methodology allowing offsetting of one species with an entirely different species and allowing for a financial contribution in lieu of an offset, represent a radical departure from the “like for like” principle of offsetting. The rationale that offset rules for biocertification must be relaxed due to the landscape scale and to make the scheme more attractive to voluntary participants do not justify such a significant departure from ecological principles.”<sup>76</sup>

A further problem is the inhibition of certification caused by the adoption of the standard LEP format following the gazettal of the *Standard Instrument (Local Environmental Plans) 2005* in March 2006. The formulation of standardized local planning controls provided an opportunity to integrate biodiversity protection provisions in land-use planning throughout the State. However, as the new LEP format does not include any clauses relating to biocertification or offsets, doubts have been raised over how supportive DoP is of the process.<sup>77</sup> At a broader level, neither DoP nor DECCW have prepared guidelines on the nature of the statutory plan provisions to support certification of LEPs and how these relate to the legislative requirement to improve or maintain biodiversity, resulting in delays in the finalization of draft LEPs.<sup>78</sup> As mentioned in Chapter 6, with the enactment of the *Threatened Species Conservation Amendment (Biodiversity Conservation) Act 2010*, provisions relating to the biodiversity certification of EPIs were repealed, thereby removing problems associated of biocertification of EPIs.<sup>79</sup> New provisions introduced by this

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<sup>76</sup> Environmental Defender’s Office NSW Ltd, *Submission on the Draft Biodiversity Certification Methodology*, (Sydney EDO, July 2010), p 2, [http://www.edo.org.au/edonsw/site/pdf/subs10/100730draft\\_biodiversity\\_certification\\_methodology.pdf](http://www.edo.org.au/edonsw/site/pdf/subs10/100730draft_biodiversity_certification_methodology.pdf), viewed 30 December 2010.

<sup>77</sup> Connolly, I. and Fallding, M. above n 41, p 140.

<sup>78</sup> Delays in DoP and DECCW reaching consensus on the appropriate wording of clauses incorporating offset provisions delayed Albury City Council in the finalization of its draft LEP – see Connolly, I. and Fallding, above n 41, p 141.

<sup>79</sup> The *Threatened Species Conservation Amendment (Biodiversity Conservation) Act 2010* repealed Part 7 Div.5 – Biodiversity conservation of environmental planning instruments – of the *Threatened Species Conservation Act 1995*, and replaced it with a new Part 7AA – Biodiversity Certification.



statutory amendment now allow the Minister to confer biodiversity certification on specified land (that is, it does not have to be conferred only within the context of an EPI).<sup>80</sup>

Biocertification was viewed very positively by the former Growth Centres Commission as, through the auspices of the Growth Centres SEPP, it has clearly expedited the planning and development phases of the urban release precincts within the Growth Centres.<sup>81</sup> Biocertification – and the income it will generate to government – is perceived within DECCW to give that agency a stronger bargaining position in its dealings with other State agencies in policy formulation and decision-making on development in Sydney. Effectively it provides an EPI covering endangered communities in Western Sydney, and possibly a more effective conservation tool for vegetation conservation, than that originally proposed by the aborted ‘Green Zones’. It thus offers a workable tool that accommodates the challenges posed by the fact that Sydney is growing and, as a consequence, that many landowners in Western Sydney perceive that “they are sitting on their superannuation”, and yet still manages to leverage a conservation outcome.<sup>82</sup>

Opinion on biocertification is thus mixed. It is generally perceived as a sound idea or concept in theory, but the devil is in its detail. “While the legal process for biocertification is clearly outlined in legislation and guidelines, the planning process, scientific methodology and legal framework for LEP preparation have not been clearly articulated either in guidelines or in practice.”<sup>83</sup> It is an instrument in its infancy, and deserves the opportunity to mature.

## 7.4 Biobanking and Biodiversity Offsets

Description and discussion of the operation of the *NSW Biodiversity Banking and Offset Scheme* was provided in Chapter 6. Biobanking in NSW is still in its infancy – indeed at the time of writing only six biobanking agreements are listed publicly,<sup>84</sup> although several have

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<sup>80</sup> *Threatened Species Conservation Amendment (Biodiversity Conservation) Act 2010*, s.126H.

<sup>81</sup> Interview with Bruce Colman, Precinct Manager, Sydney Growth Centres (Parramatta, 6 July 2006).

<sup>82</sup> Interview with Ray Fowke, Metropolitan Branch, Department of Environment and Climate Change, 20 August 2007.

<sup>83</sup> Connolly, I. and Fallding, M., above n 41, p 133.

<sup>84</sup> See: Office of Environment and Heritage *Full list of biobanking agreements*, (2011)

<http://www.environment.nsw.gov.au/bimsprapp/Printing.aspx?type=5>, viewed 16 August 2011. Landowners enter into a biobanking agreement with the Minister for the Environment to establish a biobank site. A biobanking agreement is a conservation covenant that is attached to the land title. It runs with the land, and generally has effect in perpetuity so as to offset the impacts of development on biodiversity values. A biobanking agreement specifies the management actions that are required to be undertaken on biobank sites in



been shortlisted as either potential biobank sites, development sites or joint biobank/development sites. Legislative provision for the NSW Biobanking Scheme is found under Part 7A – Biodiversity Banking – of the *Threatened Species Conservation Act 1995*.<sup>85</sup>

#### 7.4.1 The Biobanking Assessment Methodology

A key element of the Biobanking Scheme is the establishment of the *Biobanking Assessment Methodology* (the methodology) under section 127B of the TSC Act. As required by the TSC Act the methodology was made by order of the Minister for Climate Change and the Environment,<sup>86</sup> and published in 2008.<sup>87</sup> The methodology creates rules relating to:

- the actions or proposed actions in respect of which biodiversity credits may be created (termed ‘management actions’), being actions that will improve biodiversity values;<sup>88</sup>
- the creation of biodiversity credits in respect of management actions that have been carried out, are being carried out or are proposed to be carried out on biobank sites;<sup>89</sup>
- the circumstances in which development is to be regarded as improving or maintaining biodiversity values, including where the impact of that development is offset against the impact of management actions for which biodiversity credits are created;<sup>90</sup> and
- any impact on biodiversity values that cannot be offset by the retirement of biodiversity credits.<sup>91</sup>

The biobanking assessment methodology “assesses the biodiversity values currently at development sites and biobank sites, and describes the process for measuring the loss of biodiversity values that results from removing native vegetation, threatened species habitat and threatened species on a development site, and the gain in biodiversity values from

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order for credits to be created; see: Office of Environment and Heritage *The biobanking framework*, (2011) <http://www.environment.nsw.gov.au/biobanking/biobankframework.htm>, viewed 16 August 2011.

<sup>85</sup> See *Threatened Species Conservation Act 1995*, s127A – Establishment of biobanking scheme.

<sup>86</sup> *Threatened Species Conservation Act 1995*, s.127B(1) & s.127A(2)(a)

<sup>87</sup> Department of Environment and Climate Change, *BioBanking Assessment Methodology*, (DECC, July 2008), <http://www.environment.nsw.gov.au/resources/biobanking/08385bbassessmethod.pdf>, viewed 30 December 2010.

<sup>88</sup> *Threatened Species Conservation Act 1995*, s.127B(1)(a).

<sup>89</sup> *Threatened Species Conservation Act 1995*, s. 127B(1)(b).

<sup>90</sup> *Threatened Species Conservation Act 1995*, s.127B(1)(c).

<sup>91</sup> *Threatened Species Conservation Act 1995*, 127B(1)(d).



management actions on a biobank site.”<sup>92</sup> The ‘improve or maintain test’ – as articulated in the methodology – measures the impacts of development on biodiversity values.

Two practical problems have been identified as inherent in biobanking in NSW – the deficiency of information about how to offset, and how to ensure that similar ecological communities are incorporated in any offsetting action.<sup>93</sup> Conservationists have criticized the biobanking scheme in NSW, arguing that it will be difficult to ensure the ‘improve or maintain’ test, particularly when methods to compare the biodiversity values of different sites may be too simplistic to adequately address the complexities of different vegetation types.<sup>94</sup> Their view is that:

Offsets must be a last resort and all efforts to avoid and minimise impacts must be undertaken first. If offsets are a necessity (and environmentally acceptable) as part of a development approval, then a number of key principles apply. These principles relate to avoiding and minimising impacts first; offsets must be like for like, and offsets must be additional.<sup>95</sup>

In its defence, the *Biobanking Assessment Methodology* is based on ecological principles and seeks to incorporate the latest scientific knowledge in terms of current threatened species and native vegetation data.<sup>96</sup> While recognizing that biobanking is based on a “robust” methodology, environmental groups have pointed out that the potential benefits of the methodology depend on how it is applied. Nonetheless, such groups remain skeptical of biobanking, and “have generally opposed the use of offsets as they have gained the reputation as ‘greenwash’.”<sup>97</sup> Instead, groups such as the Environmental Defender’s Office and the Total Environment Centre strongly support providing incentives for biodiversity conservation

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<sup>92</sup> Department of Environment, Climate Change and Water, *Draft BioBanking Assessment Methodology* (Version 2), (Sydney, DECC, October 2010), p 1, <http://www.environment.nsw.gov.au/resources/biobanking/10800DraftBBAMv2.pdf>, viewed 31 December 2010.

<sup>93</sup> Interview with Don Geering, formerly with NSW Department of Planning (Sydney, 3 August 2007).

<sup>94</sup> See: Environmental Defender’s Office and Total Environment Centre, *Submission on the Proposed Biobanking Scheme*, (Sydney, EDO, February 2008), [http://www.edo.org.au/edonsw/site/pdf/subs08/biobanking\\_080207.pdf](http://www.edo.org.au/edonsw/site/pdf/subs08/biobanking_080207.pdf), viewed 30 December 2010; Environmental Defender’s Office NSW Ltd, above n 76.

<sup>95</sup> Environmental Defender’s Office and Total Environment Centre, *Submission on the Proposed Biobanking Scheme*, (Sydney, EDO, February 2008), p 3, available at: [http://www.edo.org.au/edonsw/site/pdf/subs08/biobanking\\_080207.pdf](http://www.edo.org.au/edonsw/site/pdf/subs08/biobanking_080207.pdf), viewed 30 December 2010.

<sup>96</sup> Department of Environment and Climate Change, *BioBanking: Biodiversity Banking and Offsets Scheme – Scheme Overview*, (Sydney, DECC, November 2007), p 15, <http://www.environment.nsw.gov.au/resources/biobanking/biobankingoverview07528.pdf>, viewed 31 December 2010.

<sup>97</sup> Environmental Defender’s Office and Total Environment Centre, above n 95, p 3.



on private land in NSW. Significantly, rather than providing a panacea when used for biobanking, environmental groups believe that the methodology could be more extensively used for land use planning and strategic planning, and see it as having a widespread application to allocate stewardship payments drawn from other sources.<sup>98</sup>

A fundamental problem of biobanking and this application of its methodology is that an ‘improve or maintain’ outcome for biodiversity values may be difficult – if not impossible – to achieve given the high conservation value of the remaining biodiversity and ecological communities in the Sydney Region.<sup>99</sup> Disagreement exists in relation to the identification of appropriate offset ratios – i.e. the ratio of conservation land to offset developed land – with this generally well in excess of a simple 1:1 ratio. DECCW calculations using the Biobanking Assessment Methodology suggest that offset ratios in the order of 7:1 will be required in the Sydney Region to meet the ‘maintain or improve biodiversity values’ test, representing a level of cost of land acquisition that developers will not be able to pay.<sup>100</sup> While “experience suggests that developers generally prefer the flexibility of negotiated offsets rather than applying a set formula”,<sup>101</sup> organizations such as the EDO believe that there should be a clear regulatory requirement setting minimum offset ratios applying to all offsets.<sup>102</sup>

A concern which goes to the core of biobanking is whether overall biodiversity can truly be maintained (let alone improved) by offsetting. Biobanking “appears to operate on the questionable premise that areas of conservation value may be substituted by other similar or nearby areas.”<sup>103</sup> Offsetting outside the Sydney Growth Centres constituted a major plank for the recommendation contained in the 2007 Final Exhibition Draft of the *Growth Centres Conservation Plan* (GCCP) that the Minister confer biodiversity certification to the State

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<sup>98</sup> Ibid.

<sup>99</sup> The integrity of the ‘improve and maintain test’ has been questioned by environmental groups for example – see: Environmental Defender’s Office NSW Ltd, 2010, *Submission on the Draft Biodiversity Certification Methodology*, Sydney EDO, July 2010, [http://www.edo.org.au/edonsw/site/pdf/subs10/100730draft\\_biodiversity\\_certification\\_methodology.pdf](http://www.edo.org.au/edonsw/site/pdf/subs10/100730draft_biodiversity_certification_methodology.pdf), viewed 30 December 2010.

<sup>100</sup> Interview with Ray Fowke, Metropolitan Branch, Department of Environment and Climate Change, 20 August 2007.

<sup>101</sup> Connolly, I. and Fallding, M, above n 41, p 143.

<sup>102</sup> Environmental Defender’s Office New South Wales, *Submission on ‘Biobanking – A Biodiversity Offsets and Banking Scheme Working Paper*, (Sydney, EDO, March 2006), p 5, <http://www.edo.org.au/edonsw/site/pdf/subs06/biobanking060330.pdf>, viewed 30 December 2010.

<sup>103</sup> Gurran, N., *Australian Urban Land Use Planning*, (Sydney, Sydney University Press, 2007), p.280.



*Environmental Planning Policy (Sydney Region Growth Centres) 2006*.<sup>104</sup> “Concerns exist that the GCCP offsetting proposals are uncertain, based on crude estimates of biodiversity and land value, do not enable biodiversity gains to be measured against loss from vegetation clearance, and do not indicate how protected lands will be managed and monitored.”<sup>105</sup> Conceptually, the logic of the ‘improve or maintain’ outcome as enunciated in the GCCP has been questioned. While protecting good quality habitat on a parcel of land (a biobank site) may achieve a biodiversity outcome by preventing it from being cleared, the result of clearing another parcel (the development site) in exchange for protecting the biobank site is a net loss of habitat in the landscape. It therefore “appears that the improve or maintain biodiversity values objective may only be achieved by improving existing habitat or creating new habitat through landscape rehabilitation and restoration.”<sup>106</sup>

At this point, two alternate views on biobanking can be discerned. The first view argues that the notion of clearing of vegetation on a development site when offset by the protection of vegetation on a conservation (offset or biobank) site, will maintain or improve biodiversity values, is even more questionable given that private land that is already zoned for private protection can be used as an offset site.<sup>107</sup> The protective zoning of that land means that there is no imminent development pressure on the land. If the biobank site is already protected under zoning law, then the public interest may not be served by funding its conservation management from the sale of development rights (i.e. offset or biodiversity credits) over a site to be cleared of vegetation for development. The arrangement is inherently unsustainable as it involves the selling of the diminishing stock of native vegetation to pay for the conservation of land that is already protected by zoning. This situation has prompted the following conclusion:

“It is suggested that a more accurate, plain English description of the effect of successful offsetting is “improve the biodiversity management of an ever-diminishing stock of remnant vegetation” rather than “overall maintenance or improvement of biodiversity values.”<sup>108</sup>

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<sup>104</sup> Growth Centres Commission, *Growth Centres Conservation Plan – Exhibition Draft*, (February 2007) <http://www.growthcentres.nsw.gov.au/media/Pdf/DRAFT%20CONSERVATION%20PLAN.pdf>, viewed 30 December 2010.

<sup>105</sup> Robinson, D., above n 62, p 220.

<sup>106</sup> Environmental Defender’s Office, above n 63, p 13.

<sup>107</sup> *Threatened Species Conservation (Biodiversity Banking) Regulation 2008* (NSW), cl 11.

<sup>108</sup> Robinson, D., above n 62, p 233.



Conversely, the alternative case can be put that a central tenet of biobanking is that a biobank site will be actively managed, not just continue to be protected from development. Inherent in the biobanking methodology is the requirement for management actions on biobank sites in order to create biodiversity credits. Management actions which create biodiversity credits include management of grazing for conservation, weed control, management of fire for conservation, management of human disturbance, retention of regrowth and native vegetation, replanting or supplementary planting where natural regeneration will not be sufficient, retention of dead timber, erosion control and retention of rocks.<sup>109</sup> Managed properly therefore, biobanking should result in a net increase of actively maintained and protected high-value biodiversity lands.

Nonetheless, the problem remains that the *BioBanking Assessment Methodology*, on which the biobanking scheme is based, recognizes that the biodiversity values in some areas of high conservation significance – referred to as ‘red flag areas’ in the methodology – may not be possible to offset because the loss in biodiversity values from clearing such communities cannot be offset by actions elsewhere.<sup>110</sup> Red flag areas are areas that are important for biodiversity conservation and cannot easily be replaced. They include over-cleared vegetation types (including endangered ecological communities) and threatened species populations or habitat which cannot withstand further loss because only a small number of populations remain and/or all viable populations are considered essential for the survival of the species.<sup>111</sup> A development is considered to improve or maintain biodiversity values if impacts on the development site are counter-balanced by the retirement of credits in accordance with the offset rules, and if red flag areas are avoided, subject to what the Biobanking Scheme

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<sup>109</sup> Department of Environment and Climate Change, above n 87, p 8.

<sup>110</sup> The DECC’s *Biobanking Assessment Methodology* defines a ‘red flag area’ in the following terms:

“A red flag area is an area of land that has high biodiversity conservation values. An area of land is regarded as having high biodiversity conservation values if it contains one of more of the following:

- a vegetation type that has greater than 70% cleared as listed in the Vegetation Types Database (that is, has less than 30% of its estimated distribution remaining in the catchment management authority (CMA) area before the year 1750) and the vegetation is not in low condition as defined below
- a critically endangered or endangered ecological community listed under the TSC Act or EPBC Act, and the vegetation is not in low condition
- one or more threatened species identified in the Threatened Species Profile Database that cannot withstand further loss in the CMA area because of one or more of the following:

the species is naturally very rare, is critically endangered, has few populations or a restricted distribution  
the species or its habitat needs are poorly known  
the species is an identified population, as defined in section 4.6 of this methodology and  
listed in the Identified Population Database (when published).”

Department of Environment and Climate Change, *BioBanking Assessment Methodology* (Sydney, DECC, 2008), pp.3-4.

<sup>111</sup> NSW Department of Environment and Climate Change, above n 96, p 6.



Overview describes as “variation provisions”.<sup>112</sup> Here the *Biobanking Assessment Methodology* prescribes criteria which, if met, enable the Director-General to make a determination that the impact of development on a red flag area can be regarded as improving or maintaining biodiversity.<sup>113</sup> Basically therefore, the methodology recognizes that there may be some circumstances in which developments impacting on red flag areas are unavoidable and could be justified and so still meet the improve or maintain test by using the variation provisions. The methodology specifies situations in which these variations are justified. The Director General of DECCW must apply the methodology and must be of the opinion that avoiding red flag areas would be unnecessary or unreasonable in the particular circumstances.

#### **7.4.2 The prospects of biobanking**

The unpalatable reality is that the State Government may not be able to fully implement the biobanking scheme in the urban areas of NSW. Trials conducted by DECCW in Western Sydney (and the same scenario is likely along much of the NSW coast) reveal that most of the remaining developable land is automatically ‘red flagged’ under the methodology because it contains endangered ecological communities.<sup>114</sup> This means that it is extremely difficult for developers and landowners to meet the ‘maintain or improve’ test, and so in all likelihood cannot participate in biobanking. In such scenarios affected property owners may have no choice but to rely on the ‘seven part test’ and a species impact statement (SIS), reverting “the Department (DECCW) back to exhaustive property-by-property negotiations.”<sup>115</sup>

Concerns have also been expressed by some local councils in the Sydney Region about the location of biodiversity offsets. Such councils have argued that the offset sites should be located in the same local government area that the development is occurring,<sup>116</sup> whereas some

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<sup>112</sup> Ibid, p 6.

<sup>113</sup> See: ‘2.3 Determining that impact of development on red flag areas can be regarded as improving or maintaining biodiversity values’, in Department of Environment and Climate Change, *BioBanking Assessment Methodology*, (2008), above n 87, pp. 4-6..

<sup>114</sup> Interview with Ray Fowke, Metropolitan Branch, Department of Environment and Climate Change, 20 August 2007.

<sup>115</sup> Interview with Ray Fowke, Metropolitan Branch, Department of Environment and Climate Change, 20 August 2007.

<sup>116</sup> Camden Council for example, has conveyed its concern to the State Government that under offsetting arrangements proposed for development sites in Camden within the South West Growth Centre, offset sites have been identified as far away as Oberon, situated to the west of the Blue Mountains in the Central Division of NSW – Interview with Sue Morris, Director, Development and Environment, Camden Council (Camden, 23 May 2007).



State Government agencies believe that the funds generated under the BioBanking Scheme could be better used to conserve larger areas of land outside the Sydney Region, where land acquisition costs are cheaper.<sup>117</sup> Further, problems arise in relation to development pressure on smaller blocks in urban areas where the site is too small for offsetting to occur and so has to be situated elsewhere. As such offsets may not be able to be located within the same local government area, a regional scheme was perceived as being required – something that could be, but eventually was not – facilitated through the sub-regional strategies, and which was further undermined by the loss of the potential green zones in the Growth Centres.<sup>118</sup> Finally, problems have arisen in situations where developers have sought to offset the loss of native vegetation on development sites with biobank sites containing ecological communities of inferior conservation status, contrary to the principles of the Biobanking Scheme.<sup>119</sup>

Biobanking is perceived as potentially a very useful tool, but one fraught with possible misuse and misunderstanding, not dissimilar from the challenges facing native vegetation management in rural areas:

“Biobanking as a concept, I mean clearly it’s on the agenda now and its potential is really significant. I think it’s a very exciting concept ... But I do think it represents a big paradigm shift and I think it’s quite exciting. Getting it right is going to be a big challenge ... I’m a little cautious in what I’m going to say ... but I do think there are things in biobanking that, when understood, and when set in their total context, will be okay. One of the greatest difficulties that I face in doing the native vegetation work and will face with biobanking, is that they are large and complex ideas ...”<sup>120</sup>

More broadly, biobanking has been criticized by some in government as representing a return to the archaic form of resolution of vegetation conservation at the individual property scale through the more time-consuming development control process – and very much contradictory to a more efficient strategic approach sought through biocertification.<sup>121</sup> A further problem relates to a lack of potential biobank sites in Western Sydney – there is unlikely to be a sufficient number of willing landowners prepared to offer biobank sites, to be

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<sup>117</sup> Interview with Ray Fowke, Metropolitan Branch, Department of Environment and Climate Change, 20 August 2001.

<sup>118</sup> Interview with Don Geering, formerly with NSW Department of Planning (Sydney, 3 August 2007).

<sup>119</sup> Department of Environment and Climate Change, *Principles for the use of biodiversity offsets in NSW*, (2009), <http://www.environment.nsw.gov.au/biocertification/offsets.htm>, viewed 11 August 2009.

<sup>120</sup> Interview with Tom Grosskopf, Director, Vegetation and Land Management, Department of Natural Resources; Board Member, Nature Conservation Trust of NSW (Parramatta, 28 February 2007).

<sup>121</sup> Interview with Ray Fowke, Metropolitan Branch, Department of Environment and Climate Change, 20 August 2007.



the recipients of cash and to sell their credits to sign up in perpetuity to conservation agreements, as many landowners believe that they are sitting on a development right.<sup>122</sup> However, while existing landowners may be reluctant to participate in biobanking, there is evidence to suggest that developers are willing to be involved in such a scheme of managing conservation lands for the public good. Increasingly, the Western Sydney Region of DoP has seen instances in a number of recent large rezoning applications of private developers not seeking to have conservation lands transferred to DECCW, but managed by community associations under community title tenure once the residential estates are developed, with the benefit of the cost burden of ongoing management shifted from the public purse to the private/community sector. A possible problem with this scenario however, may be that over time conservation objectives may not be delivered as well compared with land in public ownership.<sup>123</sup> Reliance could be placed on voluntary planning agreements entered into as a condition of development consent,<sup>124</sup> to help enforce management obligations on disparate landowners.

Despite its concerns, DECCW will diffidently persevere with biobanking as it provides one of the few genuine alternatives available for biodiversity conservation in the face of continuing NSW Treasury funding restrictions for both the outright purchase and recurrent funding for the ongoing maintenance of high conservation lands.<sup>125</sup> Here the benefits of biobanking are evident: tied up with the purchase by a developer of biobanking credits from a landowner are two financial components – a lump sum payment to the landowner and a portion which goes into a management trust, known as the Biobanking Trust Fund.<sup>126</sup> This means that in addition to an upfront payment, private landowners also bear the risk of

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<sup>122</sup> Interview with Ray Fowke, Metropolitan Branch, Department of Environment and Climate Change, 20 August 2007.

<sup>123</sup> Interview with Andrew Watson, Regional Planning Coordinator, Western Sydney, Department of Planning (Parramatta, 16 August 2007).

<sup>124</sup> *Environmental Planning and Assessment Act 1979*, s.93F

<sup>125</sup> Interview with Ray Fowke, Metropolitan Branch, Department of Environment and Climate Change, 20 August 2007.

<sup>126</sup> Part 7A of the *Threatened Species Conservation Act 1995* provides that an owner of a biobank site may apply to the Director-General for the creation of biodiversity credits (s.127W). The holder of a biodiversity credit that is in force may transfer the credit to any person, subject to the Act and regulations (s.127Z). The Act provides for the establishment of the Biobanking Trust Fund (s.127ZW), whose income includes, inter alia, amounts required to be paid into the Fund under the regulations in respect of the transfer or retirement of a biodiversity credit (s.127ZW(2)(a)). The regulations may require a specified amount to be paid into the Biobanking Trust Fund before the first transfer of a biodiversity credit is registered (under s127ZB) by the Director-General (s.127ZA).



ongoing management of biobank sites through the Biobanking Trust Fund, relieving DECCW of this recurring financial burden.<sup>127</sup>

## **7.5 Zoning, development control and the Standard Instrument (LEP)**

Problems relating to zoning as presently used as an urban growth management tool remain in NSW. These problems relate to both the rezoning or plan-making process, and LEP and zoning content. In terms of process, recent reforms involving the introduction of an LEP ‘Gateway’ determination by the Minister for Planning and other centralizing procedural changes have aimed to significantly streamline the LEP-making process.<sup>128</sup> Uncertainty still lingers however in relation to LEP content, specifically in terms of the provisions of the new Standard Instrument adopted in NSW in 2005 and presently being translated into LEPs by local councils.

Nevertheless, the perceived role of land use zoning as the basic tool available to planners to manage land use is clear:

“So land use zoning is still the ... key mechanism I see. It’s for both containing growth; identifying ... urban areas for high density development; and through the new reforms, through the LEP reforms, it’s clearly the suite of standard zones, choosing them and then being talked to by those regional strategies and Metropolitan Strategy about the types of zones that should be used in particular locations.”<sup>129</sup>

Unfortunately, the conjuncture of the Metropolitan Strategy and the Standard Instrument or LEP has also created a major problem. The timing of these two initiatives could not be worse in terms of the potential to undermine and overturn more than 50 years of accepted planning practice in NSW in relation to the role of zoning and the instances in which compensation may accrue in the event of the rezoning of land. As part of the implementation of the Standard Instrument, councils must adopt the standard zones. Included here are four

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<sup>127</sup> The provisions relating to the Biobanking Trust Fund stipulate moneys which may be paid out of the Fund, including “such amounts as the Minister directs to be paid from the Fund to an owner of a biobank site in respect of management actions carried out, being carried out or to be carried out in accordance with a biobanking agreement (*Threatened Species Conservation Act 1995*, s.127ZW(3)(a)).

<sup>128</sup> These reform were introduced as part of the *Environmental Planning and Assessment Amendment Act 2008*; Assented to 25 June 2008.

<sup>129</sup> Interview with Phillip Leijten, Acting Manager, Planning Reform, NSW Department of Planning (Sydney, 20 December 2007).



environment protection zones, which have been the cause of concern on several fronts, as further outlined below.

### 7.5.1 The Standard Instrument (LEP)

Amongst several significant changes made to the NSW statutory planning system introduced with the gazettal of the *Environmental Planning and Assessment Amendment (Infrastructure and Other Planning Reform) Act 2005*, was provision for production of standardized environmental planning instruments.<sup>130</sup> The specific form and content – i.e. ‘template’ – that principal local environmental plans are to adopt was subsequently prescribed in March 2006 in the *Standard Instrument (Local Environmental Plans) Order 2006*.<sup>131</sup> Time frames of between two and five years were also imposed upon all local councils in NSW for the preparation of a new principal LEP for their area which accords with the Standard Instrument.<sup>132</sup> The LEP template uses standard: zones (including standard zone objectives and mandated permitted and prohibited uses); definitions; clauses; and format. Councils can choose from 34 standard zones when preparing new principal LEPs for their local government area (Table 7.2 refers).<sup>133</sup>

Amongst a number of preclusions under the Standard Instrument, local councils cannot add new zones or create sub-zones; prohibit uses that are mandated as permissible in a zone; permit uses that are mandated as prohibited in a zone; or add local provisions that are inconsistent with the mandatory provisions. In short, “all local provisions prepared by councils must be consistent with the relevant core zone objectives and mandated land uses, other mandatory provisions, and relevant State or regional planning guidance (including SEPPs, REPs, section 117 directions, metropolitan or regional strategies and other relevant policy guidance).”<sup>134</sup>

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<sup>130</sup> *Environmental Planning and Assessment Amendment (Infrastructure and Other Planning Reform) Act 2005*, Schedule 2, inserting section 33A to the *Environmental Planning and Assessment Act 1979*.

<sup>131</sup> *Standard Instrument (Local Environmental Plans) Order 2006*. GG No 42 of 31.3.2006. Date of commencement, on gazettal.

<sup>132</sup> Department of Planning, ‘Standard Instrument (Local Environmental Plans) Order 2006’ *Planning Circular PS 06-008*, issued 3 April 2006, (Sydney, DoP, 2006), [http://www.planning.nsw.gov.au/planningsystem/pdf/circulars/ps06\\_008\\_standardlep.pdf](http://www.planning.nsw.gov.au/planningsystem/pdf/circulars/ps06_008_standardlep.pdf), viewed 23 March 2011.

<sup>133</sup> Department of Planning, ‘Preparing LEPs using the standard instrument: standard zones’ *LEP Practice Note PN 06-002*, issued 12 April 2006, (Sydney, DoP, 2006), [http://www.planning.nsw.gov.au/planningsystem/pdf/circulars/ps06\\_008\\_standardlep.pdf](http://www.planning.nsw.gov.au/planningsystem/pdf/circulars/ps06_008_standardlep.pdf), viewed 23 March 2011.

<sup>134</sup> Department of Planning, above n 132.



**Table 7.2: Standard Instrument (Local Environmental Plans) Order 2006  
– Standard land use zones**

<b>Rural zones</b>	<b>Industrial zones</b>
RU1 Primary Production	IN1 General Industrial
RU2 Rural Landscape	IN2 Light Industrial
RU3 Forestry	IN3 Heavy Industrial
RU4 Rural Small Holdings	IN4 Working Waterfront
RU5 Village	
RU6 Transition	
<b>Residential zones</b>	<b>Special Purpose zones</b>
R1 General Residential	SP1 Special Activities
R2 Low Density Residential	SP2 Infrastructure
R3 Medium Density Residential	SP3 Tourist
R4 High Density Residential	
R5 Large Lot Residential	
<b>Business zones</b>	<b>Recreation zones</b>
B1 Neighbourhood Centre	RE1 Public Recreation
B2 Local centre	RE2 Private Recreation
B3 Commercial Core	
B4 Mixed Use	
B5 Business Development	
B6 Enterprise Corridor	
B7 Business Park	
	<b>Environment protection zones</b>
	E1 National Parks and Nature Reserves
	E2 Environmental Conservation
	E3 Environmental Management
	E4 Environmental Living
	<b>Waterway zones</b>
	W1 Natural Waterways
	W2 Recreational Waterways
	W3 Working Waterways

Source: *Standard Instrument (Local Environmental Plans) Order 2006*.

The Standard Instrument does, however, permit the inclusion of some ‘local provisions’. Local provisions refer to any LEP content (such as clauses, objectives, and additional permitted or prohibited land uses) that is not part of the standard instrument, and “may be prepared by councils to address matters that are relevant to their local area and which are not covered by provisions in the standard instrument.”<sup>135</sup> Thus councils are afforded some discretion under the Standard Instrument – for example they can add additional objectives to the core zone objectives; add additional permitted or prohibited land uses for each zone in the land use table (so long as these do not affect mandatory provisions); and prepare maps that

<sup>135</sup> Ibid, p 3.



specify the lot sizes, building heights and floor space ratios appropriate for their local area. A particularly pertinent matter that can be covered by local provisions is local environmental or hazard map ‘overlays’ that apply in addition to zones.

Significantly, within the context of the convergence of recent State Government strategic planning initiatives such as the Metropolitan Strategy and ongoing statutory planning system reform, LEPs continue to remain the primary mechanism for the implementation of planning strategies in NSW.<sup>136</sup> While the Department of Planning has produced strategic policies for the state and regional level, and in the past has also relied on SEPPs and REPs that usually deal with specific issues, ultimately the LEP is still the place where policy crystallizes and land use controls are delivered. Requiring local councils to prepare new standardized LEPs within the context of an updated strategic context has been perceived by the Department of Planning as being very opportune and effective, particularly when compared with the strategic vacuum that occurred previously whereby the case for each proposed LEP had to be argued “through on the basis of individual clauses, zones, components, rather than having those discussions about the strategic direction, where growth’s going to happen.”<sup>137</sup>

Perceived deficiencies in the Standard LEP however have seen it criticized on a number a number of counts, including planning for biodiversity protection:

“The Standard LEP imposes limitations on the planning tools that can be used to effectively plan for biodiversity, and limits the implementation of the objects of the EP&A Act. It has a very narrow range of conservation zones when compared with past planning practice, contains inadequate definitions relating to biodiversity or natural resource management issues, and includes poorly worded and conflicting zone objectives, especially for rural lands on which many important biodiversity values are likely to occur.”<sup>138</sup>

Potentially inappropriate and contradictory LEP provisions are a significant issue that may undermine the effectiveness of biocertification specifically and biodiversity conservation measures generally. In particular, Standard LEP requirements do not appear to support beneficial biodiversity or natural resource management outcomes. For example the Standard LEP provisions omit relevant definitions of biodiversity, lack flexibility in zoning, and

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<sup>136</sup> Interview with Phillip Leijten, Acting Manager, Planning Reform, NSW Department of Planning (Sydney, 20 December 2007).

<sup>137</sup> Interview with Phillip Leijten, Acting Manager, Planning Reform, NSW Department of Planning (Sydney, 20 December 2007).

<sup>138</sup> Connolly, I. and Fallding, above n 41, p 141.



ineffectively regulate native vegetation clearance.<sup>139</sup> More broadly, the Standard LEP template is perceived as a very ‘clumsy’ tool for environment protection, particularly from the viewpoint of attempts to utilise environment protection zones being subject to demands by Parliamentary Counsel to incorporate acquisition provisions,<sup>140</sup> described in detail below.

### 7.5.2 The Environment Protection Zones

The *Standard Instrument (Local Environmental Plans) Order 2006* fails to provide a full range of conservation zones and does not necessarily provide for biodiversity information to be included in planning instruments, whether as schedules or overlay maps. Four ‘environment protection zones’ are provided for under the Standard Instrument. A summary of the guidance provided by the Department of Planning to local councils on the environment protection zones in the Standard Instrument and how they should be applied in the preparation of LEPs is provided in Table 7.3.<sup>141</sup> This guidance (‘Environment Protection Zones’, *LEP Practice Note PN 09-002*, issued 30 April 2009), is reproduced in full at Appendix C.

One of the environment protection zones – E1 National Parks and Nature Reserves – only applies to land reserved under the *National Parks and Wildlife Act 1974*, or areas identified as proposed for national park or nature reserves agreed by the NSW Government. Environment protection zones E2, E3 and E4 are meant to be applied where the protection of the environmental significance of the land is the primary consideration. However, “their importance for visitation, tourism and job creation should also be carefully considered.”<sup>142</sup>

Zone E3 Environmental Management, while seeking “to protect, manage and restore areas with special ecological, scientific, cultural or aesthetic values” does, nevertheless, “provide for a limited range of development that does not have an adverse effect on those values”. Thus the zone mandates the permissibility of dwelling houses provided consent is obtained. Local councils possess the discretion of permitting with consent, additional uses not

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<sup>139</sup> Ibid, p 149.

<sup>140</sup> Interview with Ray Fowke, Metropolitan Branch, Department of Environment and Climate Change, 20 August 2007.

<sup>141</sup> Department of Planning, ‘Environment Protection Zones’, *LEP Practice Note PN 09-002*, issued 30 April 2009, (Sydney, DoP, 2009), [http://www.planning.nsw.gov.au/planningsystem/pdf/pn09\\_002\\_envt\\_protection\\_zones.pdf](http://www.planning.nsw.gov.au/planningsystem/pdf/pn09_002_envt_protection_zones.pdf), viewed 28 March 2011.

<sup>142</sup> Ibid, p 1.



specifically prohibited by the zone. Mining and extractive industry may also be permissible in the E3 zone.<sup>143</sup> Few uses are prohibited outright in the E3 Environmental Management zone by the Standard LEP – these being business premises, industries, residential flat buildings, retail premises, service stations, and warehouse or distribution centres. Even fewer land uses must be prohibited in the E4 Environmental Living zone – industries, service stations, and warehouse or distribution centres – whilst dwelling houses must be permitted with consent. This allocation of mandated permissible and prohibited uses is consistent with the relatively weak conservation and environmental protection objectives of the E4 zone, which are “to provide for low-impact residential development in areas with special ecological, scientific or aesthetic values” and “to ensure that residential development does not have an adverse effect on those values”.

Only zone E2 Environmental Conservation contains robust zone objectives and permissibility provisions in relation to biodiversity. Zone objectives here are “to protect, manage and restore areas of high ecological, scientific, cultural or aesthetic values” and “to prevent development that could destroy, damage or otherwise have an adverse effect on those values.” Consistent with these objectives, the only use that must be permitted in the zone is environmental protection works, whilst a relatively wide range of uses must be prohibited. Pointedly, the DoP practice note on environment protection zones advises that “it is anticipated that many councils will generally have **limited areas** displaying the characteristics suitable for the application of the E2 zone. Areas where a broader range of uses is required (whilst retaining environmental protection) may be more appropriately zoned E3 Environmental Management.”<sup>144</sup>

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<sup>143</sup> The following guidance is provided by the Department of Planning in *LEP Practice Note PN 09-002* “Environment Protection Zones”, in relation to mining and extractive industry in the E3 Environmental Management Zone:

**“Consideration of mining:**

As part of council’s consideration of whether or not to apply the E3 zone, council must take into account the section 117 Direction 1.3 – *Mining, petroleum production and extractive industries* in relation to significant resources and Direction 2.1 – *Environmental protection zones* and justify any inconsistency.

Under the State Environmental Planning Policy (SEPP) (Mining, Petroleum Production and Extractive Industries) 2007, underground mining can be carried out on any land with development consent. Under this SEPP, surface mining can be carried out with consent on land for which agricultural and industrial uses are permitted (with or without consent).

Where there are mining, petroleum or extractive industries resources identified in a section 117 Direction, and a council proposes to apply the E3 zone, council needs to clarify the permissibility of mining in this zone. Councils are therefore advised to include the following note at the beginning of the E3 land use table:

Note. State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007 may apply to land within this zone.”

<sup>144</sup> Department of Planning, n 139, p 1.



**Table 7.3: Summary of Departmental guidance on the Environment Protection Zones**

<b>Zone and Application</b>	<b>Mandatory Permissible Uses</b>	<b>Additional Permissible Uses</b>
<b>E1 National Parks and Nature Reserves</b> This zone is for existing national parks, nature reserves and conservation areas and new areas proposed for reservation that have been identified and agreed by the NSW Government	Uses currently authorized under the <i>National Parks and Wildlife Act 1974</i> are permitted without consent within the zone.	It is not necessary to add any additional objectives or uses to this zone, as the relevant matters are already covered by the standard provisions.
<b>E2 Environmental Conservation</b> This zone is for areas with high ecological, scientific, cultural or aesthetic values outside national parks and nature reserves. The zone provides the highest level of protection, management and restoration for such lands whilst allowing uses compatible with those values.	There are no mandatory permitted uses for this zone.	Additional uses that may be suitable (as permitted with consent) depending on location, include: <ul style="list-style-type: none"> <li>• bed &amp; breakfast accommodation</li> <li>• eco-tourism</li> <li>• environmental facility</li> <li>• farm stay accommodation</li> <li>• environmental information and education facility</li> <li>• water recreation structure</li> <li>• wetland rehabilitation</li> </ul>
<b>E3 Environmental Management</b> This zone is for land where there are special ecological, scientific, cultural or aesthetic attributes or environmental hazards/processes that require careful consideration/management and for uses compatible with these values.  Generally, if intensive forms of agriculture are proposed, a rural zone would be more appropriate (than an E zone).	Dwelling houses are a permitted use (with consent) in this zone. Home occupations may be carried out without consent. In accordance with the direction for this zone, environmental protection works and roads must be permitted with or without consent.	Additional uses that may be suitable (as permitted with consent) depending on location, include: <ul style="list-style-type: none"> <li>• bed &amp; breakfast accommodation</li> <li>• building identification signs and business signs</li> <li>• community facility</li> <li>• dwelling house</li> <li>• eco-tourism</li> <li>• environmental facility</li> <li>• farm stay accommodation</li> <li>• home business, home industry and home-based child care</li> <li>• information &amp; education facility</li> <li>• kiosk</li> <li>• recreation area</li> <li>• water recreation structure</li> <li>• wetland rehabilitation</li> </ul>
<b>E4 Environmental Living</b> This zone is for land with special environmental or scenic values, and accommodates low impact residential development. As with the E3 zone, any development is to be well located and designed so that it does not have an adverse effect on the environmental qualities of the land.	The zone permits dwelling houses (with consent) and home occupations (without consent). In accordance with the direction for this zone, councils must permit environmental protection works and roads with or without consent in the zone.	Additional uses that may be suitable (as permitted with consent) depending on location, include: <ul style="list-style-type: none"> <li>• bed &amp; breakfast accommodation</li> <li>• building identification signs and business identification signs</li> <li>• caravan park</li> <li>• community facility</li> <li>• dwelling house</li> <li>• eco-tourism</li> <li>• environmental facility</li> <li>• home business, home industry and home-based child care</li> <li>• information &amp; education facility</li> <li>• kiosk</li> <li>• recreation area</li> <li>• secondary dwellings</li> </ul>

Source: Compiled from Department of Planning, Environment Protection Zones', *LEP Practice Note PN 09-002*, issued 30 April 2009.



### 7.5.3 Acquisition and compensation in the E zones?

In relation to the designation of land under the environment protection zones the potential to attract compensation through compulsory acquisition for ‘down-zoning’ or ‘injurious affection’ was an issue raised in several of the interviews conducted for this thesis.

Under the *Hornsby Local Environmental Plan 1994* for example, environment protection zones are not subject to acquisition provisions, but open space zones are. Hornsby Shire Council expressed concern over advice it had received from a regional team of the Department of Planning that it may need to include an acquisition clause in instances where it carried forward any environment protection zones from its current LEP into its new Standard LEP.<sup>145</sup> Hornsby Council did not agree with that position because it had always stated that such land was not subject to acquisition provisions, as this did not involve reserving land for open space purposes. In response to this contention, the advice from the Department was that this was still “a reservation by name ... yes, you’re not calling it open space, but you’re not really allowing development ... it’s unrealistic to expect its use for an alternative purpose.”<sup>146</sup> If this advice is to be enforced by the Department, then the extensive areas presently zoned environment protection could not be retained: “We could not zone it. I would have to remove all that environmental protection – there’s no way Council could afford to acquire all that sort of land.”<sup>147</sup>

Regrettably, the source of this misunderstanding amongst interviewees in relation to the circumstances in which compensation may be required was advice provided by Parliamentary Counsel and the Department of Planning. To decipher and assess this advice, an analysis of the relevant statutory framework governing compulsory acquisition of land subject to planning restrictions such as reservation for a public purpose (i.e. designation for a future public use) is required. Pertinently, this involves consideration of relevant provisions of the *Land Acquisition (Just Terms Compensation) Act 1991* and the *Environmental Planning and Assessment Act 1979*.

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<sup>145</sup> Interview with James Farrington, Manager, Town Planning Services, Planning Division, Hornsby Shire Council (Sydney, 2 March 2007).

<sup>146</sup> Interview with James Farrington, Manager, Town Planning Services, Planning Division, Hornsby Shire Council (Sydney, 2 March 2007).

<sup>147</sup> Interview with James Farrington, Manager, Town Planning Services, Planning Division, Hornsby Shire Council (Sydney, 2 March 2007).



The *Land Acquisition (Just Terms Compensation) Act 1991* ('LAJTC Act') "applies to the acquisition of land (by agreement or compulsory process) by an authority of the State<sup>148</sup> which is authorised to acquire the land by compulsory process."<sup>149</sup> Amongst its objects, the Act seeks "to ensure compensation on just terms for the owners of land that is acquired by an authority of the State when the land is not available for public sale",<sup>150</sup> and "to require an authority of the State to acquire *land designated for acquisition for a public purpose* where *hardship* is demonstrated [italics added]."<sup>151</sup> Two terms need to be considered here – 'land designated for acquisition for a public purpose' and 'hardship'. Relevant provisions of the LAJTC Act governing the acquisition of land in circumstances where it has been designated for acquisition for a public purpose is Part 2 ('Acquisition of land by compulsory process'), Division 3 ('Owner-initiated acquisition in cases of hardship').<sup>152</sup> Dealing with 'hardship' first, an owner who suffers hardship may, by notice in writing, require an authority of the State to acquire land designated for acquisition.<sup>153</sup> To trigger this provision, the land designated for acquisition by that authority must be for a public purpose, and the hardship must be caused as a result of any delay in the acquisition of the land.<sup>154</sup> Significantly, an owner of land suffers hardship if:

- “(a) the owner is unable to sell the land, or is unable to sell the land at its market value, because of the designation of the land for acquisition for a public purpose, and
- (b) it has become necessary for the owner to sell all or any part of the land without delay:
  - (i) for pressing personal, domestic or social reasons, or
  - (ii) in order to avoid the loss of (or substantial reduction in) the owner's income.”<sup>155</sup>

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<sup>148</sup> An 'authority of the State' is defined as:

“(a) a Minister of the Crown, or  
 (b) a statutory body representing the Crown, or  
 (c) a council or a county council within the meaning of the *Local Government Act 1993*, or  
 (d) any other authority authorised to acquire land by compulsory process.” (*Land Acquisition (Just Terms Compensation) Act 1991*, s.4).

<sup>149</sup> *Land Acquisition (Just Terms Compensation) Act 1991*, s.5.

<sup>150</sup> *Land Acquisition (Just Terms Compensation) Act 1991*, s.3(b).

<sup>151</sup> *Land Acquisition (Just Terms Compensation) Act 1991*, s.3(d).

<sup>152</sup> *Land Acquisition (Just Terms Compensation) Act 1991*, Part 2, Division 3 (ss.21-27): 'Acquisition of land by compulsory process – Owner-initiated acquisition in cases of hardship'.

<sup>153</sup> *Land Acquisition (Just Terms Compensation) Act 1991*, s.23.

<sup>154</sup> *Land Acquisition (Just Terms Compensation) Act 1991*, s.23(1)(a) and (b); where written notice has been given by an owner in such circumstances, s.23(2) then requires that the acquisition authority must acquire the land within 90 days after that notice is given.

<sup>155</sup> *Land Acquisition (Just Terms Compensation) Act 1991*, s.24(2).



Generally, this hardship provision does not apply to a corporation.<sup>156</sup>

Turning to the definition of ‘land designated for acquisition for a public purpose’, section 21 of the LAJTC Act states that land is designated for acquisition by an authority of the State for a public purpose if:

- “(a) an authority of the State has, in connection with an application for development consent or building approval, given the local authority or other person dealing with the application written notice that the land has been designated by the authority of the State for future acquisition by it for a public purpose, or
- (b) the land is reserved by an environmental planning instrument for use exclusively for a purpose referred to in section 26(1)(c) of the *Environmental Planning and Assessment Act 1979* and the instrument (or some other environmental planning instrument) specifies that authority as the authority required to acquire the land.”<sup>157</sup>

For the purpose of this provision, land is reserved by an environmental planning instrument for use exclusively for a purpose referred to in section 26(1)(c) of the EP&A Act only if:

- “(a) the land is expressly set apart by that instrument for use exclusively for such a purpose, or
- (b) the land is expressly set apart by that instrument for use for such a purpose and also for other purposes, but those other purposes do not constitute a reasonable use of the land.”<sup>158</sup>

Thus, for land to be ‘land designated for acquisition for a public purpose’ under the LAJTC Act, and therefore be subject to its compulsory acquisition provisions, it must either be subject to a development application and written notice has been given to the local council that it has been designated for future acquisition for a public purpose, or that it has been reserved by an EPI for use exclusively for a (public) purpose referred to in s.26(1)(c) of the EP&A Act. This section of the Act, titled ‘Contents of environmental planning instruments’, states that an EPI may make provision for:

- “(c) reserving land for use for the purposes of open space, a public place or public reserve within the meaning of the *Local Government Act 1993*, a national park or other land reserved or dedicated under the *National Parks and Wildlife Act*

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<sup>156</sup> *Land Acquisition (Just Terms Compensation) Act 1991*, s.24(3).

<sup>157</sup> *Land Acquisition (Just Terms Compensation) Act 1991*, s.21(1)(b).

<sup>158</sup> *Land Acquisition (Just Terms Compensation) Act 1991*, s.21(3)(a) and (b). Section 21(3) also states (not necessarily helpfully), that “the aims, objectives policies and strategies of that instrument are to be taken into account in determining whether those other purposes constitute a reasonable use of the land.”



1974, a public cemetery, a public hospital, a public railway, a public school or any other purpose that is prescribed as a public purpose for this section.”<sup>159</sup>

Significantly, in April 2006, the Department of Planning released *Planning Circular PS06-009* advising local councils, relevant State agencies and the community of changes to the land acquisition process for reserved land.<sup>160</sup> Specifically, this related to amendments to the EP&A Act – in the form of the *Environmental Planning and Assessment (Reserved Land Acquisition) Act 2006* – regarding the procedure for owner-initiated acquisition of land reserved for public purposes.<sup>161</sup> Several reasons were advanced for the changes that were introduced through the amendment Act. First, the amendment Act provided that the procedure for owner-initiated acquisition of land reserved in an EPI (such as an LEP) made under the EP&A Act is the same as in the LAJTC Act. Second, it provided the opportunity for State agencies and local councils to review reservations prior to acquisition, and to rezone land reserved for public purposes where the land was no longer needed. The timing of this review to coincide with the requirement of local councils to prepare a new comprehensive LEP under the Standard Instrument was seen to be particularly appropriate. As part of the process of local councils reviewing their LEPs, public authorities who had reserved land under an LEP could also review whether the land was still needed for the public purpose for which it was originally reserved. Councils’ new LEP could then incorporate any rezoning if the land was no longer needed by the public authority. Third, the amendment meant that a public authority of the State would not be required to acquire land unless it was of the opinion that the owner would suffer hardship if there was a delay in the acquisition of the land by the relevant authority.

The prime purpose of the change was to provide a single procedure for owner-initiated acquisitions throughout NSW in relation to land reserved for a public purpose by an EPI (as outlined in s.26(1)(c) of the EP&A Act). This was done by amending section 27 of the EP&A Act to reflect the owner-initiated procedure under the LAJTC Act.<sup>162</sup> Several of the new provisions of s.27 are relevant to the present analysis and reinforce the conclusion that

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<sup>159</sup> *Environmental Planning and Assessment Act 1979*, s.26(1)(c).

<sup>160</sup> Department of Planning, ‘Changes to the land acquisition process for reserved land’, *Planning Circular PS 06-009*, issued 27 April 2006, (Sydney, DoP, 2006).

<sup>161</sup> *Environmental Planning and Assessment Amendment (Reserved Land Acquisition) Act 2006* (NSW). Assented to 11 April 2006.

<sup>162</sup> Department of Planning, above n 158, p 1. Section 27 of the EP&A Act amended by omitting the original section and replacing it with a new s.27 – Owner-initiated acquisition of land reserved for public purposes: vide *Environmental Planning and Assessment Amendment (Reserved Land Acquisition) Act 2006*, Schedule 1.



owner-initiated compulsory acquisition provisions in NSW *only apply to land reserved for public purposes as outlined in s.26(1)(c) of the EP&A Act*, and not for perceived ‘downzonings’ to the E2 Environmental Conservation and E3 Environmental Management zones. These provisions are discussed in turn below.

First, it appears that a relevant authority of the State only needs to be specified by an EPI in the case where that EPI “reserves land exclusively for a purpose referred to in section 26(1)(c).”<sup>163</sup> The only environmental protection land listed under this section is “a national park or other land reserved or dedicated under the *National Parks and Wildlife Act 1974*”. This equates to the E1 National Parks and Nature Reserve Zone under the Standard Instrument. The other environment protection zones (E2-E4) are not included under s.26(1)(c), and so do not require an acquisition authority to be specified.

Second, section 21 of the LAJTC Act applies for the purposes of determining whether an EPI reserves land for use exclusively for a purpose referred to in s.26(1)(c).<sup>164</sup> Here, s.21(3) defines that land is reserved by an EPI for use exclusively for a purpose referred to in s.26(1)(c) only if the land is expressly set apart by that instrument exclusively for such a purpose, or expressly set apart for such a purpose but also for other purposes (but those other purposes do not constitute a reasonable use of the land). As land in the Environmental Conservation and Environmental Management zone is not expressly set apart by an EPI for use exclusively for any of the public purposes listed in s.26(1)(c), it cannot be “land designated for acquisition for a public purpose” as defined by s.21 of the LAJTC Act and so be subject to compulsory acquisition by an authority of the State.

Finally, section 27(3) states that an EPI “is not to be construed as requiring an authority of the State to acquire land, except as required by Division 3 of Part 2 of the *Land Acquisition (Just Terms Compensation) Act 1991*.” Clearly, as the above analysis has sought to demonstrate, Departmental and Parliamentary Counsel advice that an acquisition authority may need to be nominated and compulsory acquisition available in the case of rezoning of land to the Environmental Conservation and Environmental Management zones, appears to be contrary to this section of the EP&A Act as this compulsory acquisition requirement falls outside the remit of the LAJTC Act.

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<sup>163</sup> *Environmental Planning and Assessment Act 1979*, s.27(1).

<sup>164</sup> *Environmental Planning and Assessment Act 1979*, s.27(2).



#### 7.5.4 Environment protection zoning – a Departmental view and response

Utilisation of compulsory acquisition as a planning tool via the reservation and zoning of land through the Standard Instrument was discussed with the Department of Planning at some length as part of the research conducted for this thesis. Specific consideration here focused inextricably on compulsory acquisition of land reserved for public purposes using the provisions of the LAJTC Act and the EP&A Act, and whether land zoned environment protection under the Standard Instrument might require compulsory acquisition. The general view of the Department at this time is best summarized by the following response:

“There’s been an erroneous view out there – and I can say that with some reasonable confidence – that the test in the legislation is that there needs to be an economic use of land, and that’s not the case ... there’s nothing in the legislation that says that an acquisition is required if there’s no economic use of the land: the test is exclusively for a public purpose or exclusively with some other use that isn’t a reasonable use, and then to be able to demonstrate hardship and not be a publicly listed company etc, and so there’s even further additional tests before you can actually require ... acquisition. So, that’s something ... eagerly awaited ... the Department clarifying in what circumstances acquisition clauses or nominating an acquisition authority will be required, generally in relation to all uses but particularly with respect to environment conservation [zones].”<sup>165</sup>

The situation when compulsory acquisition of land is required was understood in the following terms – and clearly environment protection zoning was not deemed to be such a situation:

“My view ... is that environmental conservation is an objective of the [EP&A] Act. It’s not listed as a public purpose under s 26 of the Act, and acquisition obligations are really focused on ... the uses that are in s 26(1)(c) ... [which] are all public purposes. Most of them give suggestion to land being brought into public ownership for public use. It doesn’t make mention of environmental conservation ... the acquisition seems to be specifically narrow to identifying lands that are future public use ... to bring into public ownership basically.”<sup>166</sup>

In response to this uncertainty, in April 2009 the Department of Planning released its practice note on environment protection zones.<sup>167</sup> The Department stated that the purpose of the

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<sup>165</sup> Interview with Phillip Leijten, Acting Manager, Planning Reform, NSW Department of Planning (Sydney, 20 December 2007).

<sup>166</sup> Interview with Phillip Leijten, Acting Manager, Planning Reform, NSW Department of Planning (Sydney, 20 December 2007).

<sup>167</sup> Department of Planning, above n 141.



practice note was “to provide guidance to councils on the environment protection zones in the standard instrument and how they should be applied in the preparation of local environmental plans.”<sup>168</sup> Significantly, in the practice note the DoP provided the following advice in relation to the designation of permissible land uses in environment protection zones:

“The range of uses proposed to be permitted in the E zones is a consideration for council in consultation with the Department of Planning. In determining uses, council should be aware that the range of uses should not be drawn too restrictively as they may, depending on circumstances, invoke the *Land Acquisition (Just Terms Compensation) Act 1991* and the need for the Minister to designate a relevant acquiring authority.

Unless a relevant acquisition authority has been nominated and that authority has agreed to the proposed acquisition, council should ensure, wherever possible, that the range of proposed land uses assists in retaining the land in private ownership.”<sup>169</sup>

This general advice in relation to the environment protection zones appears to be specifically targeted to proposed E2 Environmental Conservation and E3 Environmental Management zones.<sup>170</sup> This guidance is clearly contrary to the compulsory acquisition provisions of the LAJTC Act and the land reservation and acquisition provisions of the EP&A Act,<sup>171</sup> the general position at law in NSW that compensation is not payable for mere injurious affection,<sup>172</sup> and the prior understanding of the Department on this issue, as described in comments reproduced above from the interview with the Departmental manager responsible for Planning Reform. It envisages a situation where the economic use of private land has been significantly restricted (i.e. ‘down-zoned’) so that compulsory acquisition and hence compensation may be payable. This represents a major extension of the policy presumption and legal requirement that compensation is only payable in situations where land is identified in an EPI and reserved for a future public purpose. Not surprisingly therefore, it is precisely to avoid such expanded compensation requirements that, as discussed earlier in this chapter, the DoP advised in the practice note that there be limited utilization of the E2 Environmental Conservation Zone, greater use be made of the E3 Environmental Management Zone where a

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<sup>168</sup> Ibid, p 1.

<sup>169</sup> Ibid, p 2.

<sup>170</sup> See: Department of Planning, *Environment protection zones*, LEP Practice Note (PN 09-002), (Sydney, DoP, 30 April 2009), p 6 & p 8.

<sup>171</sup> These provisions being, respectively, Part2, Division 3 of the *Land Acquisition (Just Terms Compensation) Act 1991*, and sections 26(1)(c) and 27 of the *Environmental Planning and Assessment Act 1979*.

<sup>172</sup> See, for example: Ryan, P., *Urban Development Law and Policy*, (Sydney, Law Book Company, 1988), pp 276-287.



broader range of uses is required, and that a range of uses be permissible with consent in the E2-E4 zones.

Thus, amazingly, in the context of urban growth management in NSW, whether resumption is required and compensation payable as a consequence of down-zoning to an environmental conservation or environmental management zone under the Standard LEP is not determined as a matter of law. The law states that compulsory acquisition is only required when land is reserved or needed for a public purpose. Rather, delineation of compensation and resumption is ultimately a policy matter of the extent of development potential remaining after a down-zoning has occurred. This advice is patently erroneous and should be rectified. In the meantime, resolution of this question appears to rest on crafting a finely-balanced zoning that achieves conservation objectives, but does not trigger compensation, as “unintelligent environmental protection zoning does open you up for compensation; it doesn’t mean that there should be no environmental protection zoning, but you have to be clever about it.”<sup>173</sup>

## **7.6 Other methods of acquisition of land and development rights**

Considered in this section is the use of acquisition of land, and interests or rights over land, generally outside the situation where acquisition is required because there is a reservation over land for a public purpose. Thus, this analysis extends beyond that in the preceding section of legally ‘mandated’ compulsory acquisition of land reserved for a future public purpose, and considers use of acquisition – by both government and developers – to achieve broader planning objectives.

### **7.6.1 Compulsory acquisition of future urban land and betterment**

Acquisition – whether compulsory or by agreement – of land needed for urban expansion or densification/redevelopment is a little-used urban growth management tool in NSW. Clarification of the use of powers of compulsory acquisition to achieve urban development policy objectives has recently been available as a consequence of statutory amendment following the recent decision of the High Court of Australia in *R & R Fazzolari Pty Ltd v*

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<sup>173</sup> Interview with Don Geering, formerly with NSW Department of Planning (Sydney, 3 August 2007).



*Parramatta City Council; Mac's Pty Ltd v Parramatta City Council* (2009) 237 CLR 603.<sup>174</sup> Further, a suitable model exists in the form of the compulsory acquisition of land designated for New Towns in the UK.<sup>175</sup> This system, controlled by the *Town and Country Planning Act 1990* (c.8) (UK), involves a process whereby land that is designated for a New Town following extensive investigation involving planning studies and consultation is, at the end of this process, then bought by the Government on an appointed day.<sup>176</sup> Property owners are compensated, but more in line with its current (i.e. non-urban value) and certainly not to the full extent of the value added of any consequent rezoning.<sup>177</sup> Such an approach is consistent with the *San Sebastian* principle enunciated by the High Court,<sup>178</sup> whereby the valuation of compensation for resumed land should be its value unaffected by a planning proposal, such as rezoning.<sup>179</sup> With the change in zoning, or up-zoning of the land, this approach allows part of the increase in land value – the ‘unearned increment’ or betterment – to be captured by the Government to pay for infrastructure including open space and conservation lands. Despite the failure of an earlier attempted betterment capture model in NSW,<sup>180</sup> an approach modeled on the British system has merit, as it represents “a much better process than individuals becoming millionaires over night on the basis of where they happen to end up with a bit of land.”<sup>181</sup> Not only might this model work directly where land is designated for development, but also indirectly for land wanted for conservation, by helping to ensure that only land designated and publicly acquired for urbanization is developed, and other areas – conservation, scenic and agricultural lands – do not go through this process and hence remain undeveloped. Through initiatives such as this, repetition of the demise of Sydney’s Growth Centres ‘green zones’ may be avoided.

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<sup>174</sup> In *R & R Fazzolari Pty Ltd v Parramatta City Council; Mac's Pty Ltd v Parramatta City Council* (2009) 237 CLR 603 the High Court found that the proposed acquisition of land for the redevelopment of ‘Civic Place’, a block in the Parramatta city centre, was unlawful. The court held that land proposed to be acquired by the council as a part of a public private partnership was for the purpose of ‘re-sale’ and so contrary to the provisions (specifically s.186 and s.188(1)) of the *Local Government Act 1993*. As a consequence of this decision, the NSW Parliament clarified the compulsory acquisition powers of councils in such situations by the passage of the *Land Acquisition (Just Terms Compensation) Amendment Act 2009*, inserting clause 5 (‘Restriction on compulsory acquisition of land by councils for re-sale’) to Schedule 3, Part 3.

<sup>175</sup> Interview with Sharon Fingland, Assistant Director, Western Sydney Regional Organisation of Councils (WSROC) (Blacktown, 13 August 2007).

<sup>176</sup> See *Town and Country Planning Act 1990* (c.8) (UK), Part IX – Acquisition and Appropriation of Land for Planning Purposes etc.

<sup>177</sup> *Town and Country Planning Act 1990* (c.8) (UK), s.226 – Compulsory acquisition of land for development and other planning purposes.

<sup>178</sup> *Housing Commission of NSW v San Sebastian Pty Ltd* (1978) 140 CLR 196.

<sup>179</sup> Incorporated into the *Land Acquisition (Just Terms) Compensation Act 1991*, s.3(1)(a).

<sup>180</sup> *Land Development Contribution Management Act 1970*.

<sup>181</sup> Interview with Sharon Fingland, Assistant Director, Western Sydney Regional Organisation of Councils (WSROC) (Blacktown, 13 August 2007).



A similar model of compulsory acquisition and betterment capture might be considered for assembling land required for new urban release areas such as the Sydney Growth Centres, and protecting other lands from urbanization and its impacts. Benefits of acquisition of new urban land on the basis of the British New Town model are threefold. First, it discourages land speculation and the delay and financial costs of acquisition hold ups and hold outs by land owners for higher sales process. Second, the model permits Government to pay for the infrastructure required in new urban release areas through it, rather than property owners, by capturing the increase in land values. Third, the acquisition of imminent urbanized land by Government facilitates a “sensible development path”, unlike the “chaotic” situation that existed in the North West sector – particularly Baulkham Hills – where several development fronts proceeded simultaneously, and which is now being replicated in the South West Growth Centre.<sup>182</sup> Greater certainty in the land conversion process is thus also more likely to be achieved.

Speculation in land on the rural-urban fringe would no longer be attractive as the market value of land under investigation for urbanization would not increase inordinately as landowners, developers and speculators would know that if selected for urbanization, such land would be compulsorily acquired by government. An added benefit of this model is that, unlike speculation that treats rural land at the urban fringe as ‘urban land in waiting’, with consequent planning blight causing a lack of upkeep or investment in it, the inevitable rural-to-urban land use conversion spiral is more likely to be averted.<sup>183</sup> As is the case in Britain, the NSW Government could step in and, using compulsory acquisition powers available to it under the *Land Acquisition (Just Terms Compensation) Act 1991* (NSW), resume land designated for urbanization. Such powers could be exercised by Landcom or the newly-formed Sydney Metropolitan Development Authority,<sup>184</sup> or an organization such as a development corporation which could also utilize powers available under the *Growth Centres (Development Corporations) Act 1974*.<sup>185</sup>

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<sup>182</sup> Interview with Sharon Fingland, Assistant Director, Western Sydney Regional Organisation of Councils (WSROC) (Blacktown, 13 August 2007).

<sup>183</sup> Daniels, T. and Bowers, D., *Holding Our Ground: Protecting America's Farms and Farmland*, (Washington, DC, Island Press, 1997), p 6.

<sup>184</sup> Kelly, The Hon. Tony, ‘Sydney Metropolitan Development Authority’, (Media Release, Sydney, 23 September 2010) [http://www.smda.nsw.gov.au/downloads/press\\_release.pdf](http://www.smda.nsw.gov.au/downloads/press_release.pdf), accessed 10 April 2011.

<sup>185</sup> Searle, G., ‘Recasting the New State Spaces Thesis: State centralization, Changing Accumulation Potentials, and Sydney's Development Corporations’ paper given at the *World Planning Schools Conference*, Mexico City, 12-16 July 2006.



The use of such models of public acquisition of future urban land would assist in the ‘quarantining’ of valuable natural resource lands from development through their exclusion from acquisition for future development and, if necessary, their enhanced protection through public acquisition for conservation, open space and rural purposes, funded by betterment capture. There appears to be the need for such an approach in Sydney. For example, the existing open space in Western Sydney – specifically the Western Sydney Regional Park – has been identified by WSROC as being insufficient to meet the needs created by the planned development on the fringe of Sydney.<sup>186</sup> Further acquisitions, particularly along existing creek systems, are required to preserve remaining biodiversity and extend open space links with the Western Sydney Regional Park so that it does not become an isolated island of open space. Thus, WSROC has argued for both the creation of regional nature reserves and the expansion of ‘green’ open space corridors as two strategies to protect natural environments and systems in Western Sydney.<sup>187</sup>

Finally, State agencies such as the DECCW and local government do not always have the ability to accept the offer of private land with biodiversity values as an offset due to a lack of resources or connectivity with existing reserves or open space. The DECCW therefore encourages the “payment of financial contributions to acquire land, rehabilitate degraded areas or undertake priority management actions.”<sup>188</sup> Other models which rely on public or private acquisition of property or rights over property to achieve natural resource conservation objectives need to be further explored in the context of managing Sydney’s urban growth. Two of these tools – conservation covenants and transferable development rights are discussed briefly below.

### **7.6.2 Conservation covenants – the Nature Conservation Trust**

The Nature Conservation Trust of NSW was established under the *Nature Conservation Trust Act 2001* and commenced operations early in 2002. The Trust actively promotes long term protection of land by registering conservation agreements (also called Trust agreements) on

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<sup>186</sup> Interview with Sharon Fingland, Assistant Director, Western Sydney Regional Organisation of Councils (WSROC) (Blacktown, 13 August 2007).

<sup>187</sup> Western Sydney Regional Organisation of Councils Ltd., *Future West*, Final Report, (Blacktown, WSROC, 2005), p 76.

<sup>188</sup> Department of Environment and Climate Change, above n 36, p 6.



the titles of properties with high conservation values. A conservation agreement is a form of protective covenant that is a legally binding agreement between a landowner and the Nature Conservation Trust to protect the environmental integrity and biodiversity of a property.<sup>189</sup> The conservation agreement is registered on the property title which ensures the land is protected in perpetuity. The Trust is able to enter into these agreements under the *Nature Conservation Trust Act 2001*.<sup>190</sup>

The Nature Conservation Trust was set up in response to efforts by government and conservation groups to get into the market place a non-government organization that would facilitate nature conservation on private lands. It is a hybrid organization – it is government supported, but as a not-for-profit NGO is less tied to government. There are other examples of this type of organization, such as the Australian Bush Heritage Fund and the Private Land Conservation Program in Tasmania.<sup>191</sup> In particular, Tasmania's Private Land Conservation Program appears to have been very effective, with 600 covenants covering 75,634 ha of private land in place as at November 1 2010.<sup>192</sup>

Specifically, the object of the Nature Conservation Trust is to protect and enhance natural heritage by “encouraging landholders to enter into co-operative arrangements for the management and protection of urban and rural land in private occupation that is significant for the conservation of natural heritage,”<sup>193</sup> and “providing mechanisms for achieving conservation of that heritage.”<sup>194</sup> A significant function of the Trust is to operate the *Revolving Fund Scheme*,<sup>195</sup> and in exercising this and other functions, it has the power “to buy, sell, hold, lease or otherwise deal with land.”<sup>196</sup> The Revolving Fund Scheme is a scheme under which the Trust:

- “(a) buys or otherwise acquires land that is significant for the conservation of natural heritage (and any cultural heritage associated with natural heritage), and

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<sup>189</sup> Nature Conservation Trust of NSW, *About Conservation Agreements*, (2011) <http://nct.org.au/protecting-private-land/about-conservation-agreements.html>, viewed 11 April 2011.

<sup>190</sup> *Nature Conservation Trust Act 2001*, s.30.

<sup>191</sup> Interview with Tom Grosskopf, Board Member, Nature Conservation Trust of NSW (Parramatta, 28 February 2007).

<sup>192</sup> Department of Primary Industries, Parks, Water and Environment, *The Private Land Conservation Program* (2011) <http://www.dpipwe.tas.gov.au/inter.nsf/WebPages/DRAR-7TR9ZR?open>, viewed 11 April 2011.

<sup>193</sup> *Nature Conservation Trust Act 2001*, s.10(1)(a).

<sup>194</sup> *Nature Conservation Trust Act 2001*, s.10(1)(b).

<sup>195</sup> *Nature Conservation Trust Act 2001*, s.11(2)(a).

<sup>196</sup> *Nature Conservation Trust Act 2001*, s.12(2)(a).



- (b) arranges for a protective covenant to be registered on the title to the land, and
- (c) sells or leases the land subject to that protective covenant, and
- (d) uses the proceeds of the sale or lease for the acquisition of further land referred to in paragraph (a) for the purposes of dealing with that land in accordance with paragraphs (b) and (c) and using the proceeds of the sale or lease as set out in this paragraph.”<sup>197</sup>

The funds are thus used to purchase properties with high conservation values. The Trust then manages each property to maintain and improve its conservation and agricultural assets and then sells it to a supportive new owner with a conservation agreement attached. A management plan is prepared for each property to assist the new owner in meeting the Trust agreement requirements, and once the agreement is registered, the new owner is supported by the Trust through its Stewardship Program.<sup>198</sup> All proceeds from the sale of a property are returned to the Revolving Fund for future acquisitions, so that a greater conservation return accrues from the initial investment. In 2003 the Trust received \$2 million from the Australian and NSW Governments, enabling it to establish its Revolving Fund. At the time of writing, the Trust’s Revolving Fund totaled \$25 million to be used for future acquisitions of conservation significance.<sup>199</sup> The Nature Conservation Trust is the only organization operating a Revolving Fund in NSW with covenants attached to property titles.<sup>200</sup>

As at early 2011 the Nature Conservation Trust had several Conservation Agreement Programs in place, two of which are within the Hawkesbury-Nepean Conservation Agreement Programs. In both these programs the Trust has joined with the Hawkesbury-Nepean Catchment Management Authority. The first program involves the protection of high conservation value private land in the Capertree Valley and the Cocks River Valley, to the west and northwest of Sydney.<sup>201</sup> The second concerns the Greater Blue Mountains World Heritage Area, and is designed to safeguard this area from threats from adjoining private

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<sup>197</sup> *Nature Conservation Trust Act 2001*, s.7(1)(a)-(d).

<sup>198</sup> Nature Conservation Trust of NSW, *Stewardship*, (2011) <http://nct.org.au/protecting-private-land/stewardship.html>, viewed 11 April 2011.

<sup>199</sup> Nature Conservation Trust of NSW, *About Revolving Funds*, (2011) <http://nct.org.au/properties-for-sale/about-revolving-funds.html>, viewed 10 April 2011.

<sup>200</sup> *Ibid.*

<sup>201</sup> As at early 2011, four Capertree Valley landholders had protected a total of 120 hectares of high conservation value land with permanent Nature Conservation Trust conservation agreements. Agreements protecting an additional 154 hectares across another four properties were well progressed. See: Nature Conservation Trust, *Hawkesbury-Nepean Conservation Agreement Programs*, (2011) <http://nct.org.au/protecting-private-land/conservation-agreement-programs/Hawkesbury-Nepean.html>, viewed 10 April 2011.



lands. Running until 2013, this program seeks to protect a number of properties near or adjacent to the World Heritage Area with permanent Trust agreements.<sup>202</sup>

### 7.6.3 Transferable development rights

Despite a number of past and current examples of transferable development rights schemes in Australia, apparent reluctance for more widespread use of TDR as a planning tool persists in NSW. This is despite TDR being identified as a tool worthy of consideration, for example, in the NSW *Plan First* planning system reforms a decade ago.<sup>203</sup> Three reasons can be advanced to explain this situation. First, the utilization of market based tools is still relatively recent in Australia. There has been a tradition of reliance on ‘command and control’ regulation in Australia, which is quite different to the history of market based tools in the US and bargaining for planning gain/negotiated planning agreements in Britain. Second, there is a lack of understanding of the TDR mechanism by planning decision-makers (both politicians and planners). Third, there is ongoing legal uncertainty and impediments surrounding TDR. Evidence of the present legal impediments to the more widespread adoption of a TDR scheme in NSW include expression of doubt by the NSW Land Environment Court about the legality of TDR schemes (see for example *Leighton Properties Pty Limited v North Sydney Council* [1998] NSWLEC 39), concerns raised by a Commission of Inquiry regarding the transparency of Wollongong City Council’s TDR scheme for the protection of the Illawarra Escarpment,<sup>204</sup> and ongoing reluctance by the NSW Parliamentary Counsels Office to support draft statutory plans produced by local councils that seek to include TDR provisions.

Several State and local organizations interviewed for this thesis had considered the use of transferable development rights as a growth management tool, but any initial enthusiasm was generally extinguished by discouragement of its use by the Department of Planning and/or problems presented by the *Environmental Planning and Assessment Act 1979*. Here, the argument rests on the fact that the Act does not presume a development ‘right’ – instead development is determined by land use zoning and other provisions in EPIs – and all that the

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<sup>202</sup> Nature Conservation Trust, *Hawkesbury-Nepean Conservation Agreement Programs*, (2011) <http://nct.org.au/protecting-private-land/conservation-agreement-programs/Hawkesbury-Nepean.html>, viewed 10 April 2011.

<sup>203</sup> Department of Urban Affairs and Planning, *PlanFirst: Review of plan making in New South Wales*, (Sydney, DUAP, 2001).

<sup>204</sup> Commission of Inquiry, *The Long Term Planning and Management of the Illawarra Escarpment, Wollongong Local Government Area*, (Sydney, Office of the Commissioners of Inquiry for Environment and Planning, 1999).



Act permits is the right to seek development consent. DECCW has for some time tried to persuade DoP and others to adopt a TDR scheme, and this was one of the options identified in its *Biodiversity Planning Guide*.<sup>205</sup> This has been opposed by DoP on the basis that it creates a system of rights that landowners actually do not have. The irony of this view is not lost on advocates of TDR within DECCW given that the DoP has balked at environment protection zones that do not include acquisition provisions as this will affect landowners 'property rights'! As stated by one officer in DECCW: "But you just told me that they didn't have any rights. Either they do or they don't have rights, which one is it?"<sup>206</sup>

Based on the design of existing built heritage TDR schemes, there are a number of ways in which a TDR program could be enabled at local government level. One option is to include provisions within a policy, such as Sydney City Council's former *1971 Floor Space Ratio Code*.<sup>207</sup> Alternatively, the policy could be codified, i.e. placed in a statutory based code or policy document, such as the *Brisbane City Plan 2000*.<sup>208</sup> This includes transferable floor space provisions within the *City Centre Neighbourhood Plan Code* which forms part of the *City Centre Neighbourhood Area Plan*.<sup>209</sup> Finally, a TDR scheme may be given force of law by being incorporated into an environmental planning instrument, as is the case with the Heritage Floor Space Scheme under the *City of Sydney Local Environmental Plan 2005*.<sup>210</sup> Under the LEP, heritage floor space (HFS) can be sold and transferred to a development which is required to purchase HFS to achieve the floor space in the approved development application. The *Central Sydney Development Control Plan 1996* contains specific details on the operation of the HFS.<sup>211</sup> The DCP provides that HFS can be awarded in both the City Centre and City Edge zones; however its allocation is restricted to sites within the City Centre zone and other sites where development exceeds floor space ratio controls.<sup>212</sup>

<sup>205</sup> Fallding M., Kelly A., Bateson P. and Donovan I., *Biodiversity Planning Guide for NSW Local Government*, (Hurstville NSW, National Parks and Wildlife Service, 2001), <http://www.environment.gov.au/archive/biodiversity/toolbox/templates/pubs/nsw-bio-plan-guide.pdf>, viewed 11 April 2011.

<sup>206</sup> Interview with Ray Fowke, Metropolitan Branch, Department of Environment and Climate Change, (Parramatta, 20 August 2007).

<sup>207</sup> Bindon J., 'Transferable development rights: A review' (1992) 30(3) *Australian Planner* 136.

<sup>208</sup> Brisbane City Council, *Brisbane City Plan 2000*, (2000) <http://www.brisbane.qld.gov.au/planning-building/tools-forms/city-plan-2000/city-plan-2000-document/index.htm>, viewed 30 May 2011.

<sup>209</sup> Brisbane City Council, *Brisbane City Plan 2000*, Chapter 4 – Local Plans (2000) [http://www.brisbane.qld.gov.au/bccwr/lib181/chapter4\\_citycentre\\_np\\_full.pdf](http://www.brisbane.qld.gov.au/bccwr/lib181/chapter4_citycentre_np_full.pdf), viewed 30 May 2011.

<sup>210</sup> *Sydney Local Environmental Plan 2005*, cl 60, 61.

<sup>211</sup> *Central Sydney Development Control Plan 1996* – Section 7: Award and allocation of Heritage Floor Space.

<sup>212</sup> City of Sydney, *Heritage Floor Space Update* (Sydney, Sydney City Council, March 2011), <http://www.cityofsydney.nsw.gov.au/Development/documents/Heritage/HeritageFloorSpaceUpdateMar11.pdf>, viewed 30 May 2011.



## 7.7 Managing Sydney's catchments

State Government statutory and policy initiatives relating to managing Sydney's water catchments have been concerned with both water quantity and quality issues. Both these aspects of catchment management are considered below, with attention first focused on catchment health and environment flows and the Metropolitan Water Plan – which deal with water quantity problems. This is followed by an analysis of the use of instruments under the statutory planning system, which traditionally has been concerned primarily with water quality issues. Examination of the Sydney drinking water 'crisis' and the creation and operation of the Sydney Catchment Authority are then presented to progress this analysis of water quality concerns at a State level. The SCA, along with CMAs (already considered in detail in Chapter 6) are integral institutional components of the State Government's attempts to better manage catchments in and around Sydney.

### 7.7.1 Catchment health and environmental flows

The main river catchments that Sydney relies on – the Hawkesbury-Nepean, Shoalhaven and Woronora Rivers – are places of great natural beauty that are highly valued by the community. In this respect, the waters of these rivers support the health and well-being of the people of metropolitan Sydney, the Blue Mountains, the Illawarra and the Shoalhaven regions – about 70% of the population of NSW. However, the health of Sydney's waterways has suffered major damage since the commencement of European settlement. They are under increasing stress due to population and economic growth with water demand outstripping supply. Further, "it is predicted that climate change as a consequence of global warming will affect rainfall, water storages and river health significantly."<sup>213</sup>

The health of a river system is mainly determined by the health of its catchment. The health of the Hawkesbury-Nepean, Shoalhaven and Woronora Rivers are directly affected by:

- "the complex network of the infrastructure, including water supply storages – 15 major dams and reservoirs, two diversionary weirs for water supply purposes and numerous

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<sup>213</sup> Hawkesbury-Nepean River Management Forum, *Water and Sydney's Future – Balancing the values of our rivers and economy*, Final Report of the Hawkesbury-Nepean River Management Forum to the Minister for Infrastructure and Planning and Minister for Natural Resources, and the Minister for the Environment, (Sydney, DIPNR, March 2004), p 2.



other weirs, including 13 on the middle to upper Nepean River – and bulk water transfer delivery;

- bulk transfers of water by the Sydney Catchment Authority for water supply purposes within and between catchments and water storages – these ensure water supplies to urban, industrial and rural areas;
- water extraction for irrigation and basic landholder rights;
- sand and gravel extraction and subsequent changes in the shape and size of the river channels;
- long-term historic changes in land use and population growth, resulting in poor water quality because of point and diffuse pollution; and
- the invasion of exotic animals and plants (including toxic blue-green algae), and loss of biodiversity.<sup>214</sup>

As part of the solution to this problem it is now accepted that provision of environmental flows – by restoring some of the quantity and natural variability of river flows – is an essential part of returning rivers to a condition to support acceptable environmental, social, economic, cultural and heritage values.<sup>215</sup> In response to the independent inquiries into the Hawkesbury-Nepean River system conducted by the Healthy Rivers Commission in the late 1990s, some provisional environmental flows were released. Further, the Hawkesbury-Nepean River Management Forum (the Forum) was established in April 2001, to make recommendations to the then Minister for Land and Water Conservation and the Minister for Environment principally on provisions for environmental flows to be included in the water management licence of the Sydney Catchment Authority.<sup>216</sup> The Forum's initial Terms of Reference required it to advise on the provision and monitoring of environmental flows for the Hawkesbury-Nepean River below the dams. However, a policy decision of the NSW State Government in December 2001 effectively broadened the scope of the Forum's Terms of Reference, so that the "key elements of the water cycle in the metropolitan area, including water supply, stormwater and sewage, are to be managed in an integrated way..."<sup>217</sup>

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<sup>214</sup> Ibid, p 2.

<sup>215</sup> Ibid, p 1.

<sup>216</sup> In the context of the Forum's work, the term 'environmental flows' refers to the proportion of flow in a river or its tributaries that is reserved solely for the purpose of maintaining or improving the riverine environment and water quality. These flows are protected as environmental health water under section 8 of the *Water Management Act 2000*.

<sup>217</sup> Hawkesbury-Nepean River Management Forum, above n 213, p 8.



In seeking what was effectively integrated total water cycle management for metropolitan Sydney, the State Government's policy necessitates that the environmental flow regimes for the Hawkesbury-Nepean, Shoalhaven and Woronora Rivers be accompanied by a range of strategies including demand management; effluent re-use; protection of agricultural land; management of weirs and other in-stream structures; community engagement and education; review of system reliability; maximization of water system yield; and water-sensitive urban design.<sup>218</sup>

Pressures on Sydney's water resources which cannot be ignored are population growth, global warming and natural climate variability, with the latter two pressures causing average temperatures to rise and the amount of annual rainfall to decrease.<sup>219</sup> This has resulted in the loss of natural flows in the rivers and, combined with significant land use change, is contributing to the declining health and diversity of the rivers. "Changed water and land uses have resulted in the rivers having increased levels of nutrients and toxins, and altered habitats that support fewer species of native aquatic biota. River behaviour has been significantly changed by dams and weirs built during the twentieth century for water supply purposes."<sup>220</sup>

The region containing Sydney's drinking water catchments is subject to extremes of floods and droughts. However, it is the scarcity of water when there are low flows in the rivers that is of particular concern, and which the Forum addressed in its Final Report released in March 2004. River health relies on both the variability of flow and sufficient quantities of flow, and neither of these currently occur during low flow conditions. An average long-term inflow to the Sydney water supply dams is 2900 GL per year. The Sydney Catchment Authority's infrastructure is capable of storing 2407 GL, though this capacity is seldom reached. However, taking into account factors such as climatic variability (ensuring that enough water is stored during wetter periods to ensure adequate supply during reduced catchment run-off in the drier cycles), system performance criteria, existing provisional environmental flows and the storage capacity of the dams, the current operations of the dams were deemed to be able to supply 600GL per year of water to Sydney on a sustainable basis.<sup>221</sup> This determination of 600GL as the long term annual yield of Sydney's water catchments compares with an actual

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<sup>218</sup> Ibid, pp 8-9.

<sup>219</sup> Ibid, p 17.

<sup>220</sup> Ibid, p 12.

<sup>221</sup> Ibid.



consumption level of 634GL in 2004.<sup>222</sup> Recognition by the NSW Government of both immediate and long term problems of the sustainable quantity of water available to Sydney culminated in the release of the first Metropolitan Water Plan in 2004 (discussed further below).<sup>223</sup> Following the introduction of various water saving measures (including water use restrictions), consumption dropped to 440 GL by early 2007, which was the same amount of water Sydney was consuming in 1973 when the population was 1.5 million less.<sup>224</sup>

### 7.7.2 The Metropolitan Water Plan

Recognition in more recent years of the predicament that Sydney is using more water than is sustainable, in terms of the difference between the amount of water consumed and the amount of water provided by its catchments, culminated in the formulation of a Metropolitan Water Plan in 2004.<sup>225</sup> Primarily developed to ensure that the population of Sydney had enough water to meet its needs of the next 25 years, it was also described as the next step in a program to restore the health of the Hawkesbury-Nepean River and other rivers surrounding the city. Nonetheless, the focus of the Plan was overwhelmingly development focused since it “recognises that Sydney’s future growth and economic prosperity needs secure water resources for people, industry and the environment.”<sup>226</sup> Devised as a ‘whole of government’ process led by DIPNR, a number of other agencies were involved in the preparation of the Plan, including the Department of Energy, Utilities and Sustainability, Department of Environment and Conservation, Department of Primary Industries, Sydney Catchment Authority and Sydney Water Corporation. Also involved were a number of ‘non-resource’ agencies – the Independent Pricing and Regulatory Tribunal, NSW Health, NSW Treasury and the Cabinet Office.

In December 2005 the Metropolitan Water Plan was reviewed, with a preliminary report released in February 2006.<sup>227</sup> This independent review was commissioned by the NSW Cabinet Office and contained findings regarding Sydney’s supply-demand balance for water, both in the immediate and longer term. Several factors had changed since the formulation of

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<sup>222</sup> Ibid, p 7.

<sup>223</sup> Department of Infrastructure, Planning and Natural Environment, *Meeting the challenges – Securing Sydney’s water future*, (Sydney, DIPNR, 2004).

<sup>224</sup> Interview with John Whitehouse, Board Member, Sydney Catchment Authority (Sydney, 21 March 2007).

<sup>225</sup> Department of Infrastructure, Planning and Natural Environment, above n 223.

<sup>226</sup> Ibid, p 2.

<sup>227</sup> Institute for Sustainable Futures, *Review of the Metropolitan Water Plan*, (Sydney, University of Technology, 2006).



the Metropolitan Water Plan 2004, it was argued, which provided “the basis for a more optimistic assessment of the ability to meet Sydney’s supply-demand balance both now and to 2015.”<sup>228</sup> These positive factors included: recent rains that had added substantially to water storage, newly identified groundwater reserves, the prospect of significant new volumes of recycled water, the establishment of a ‘viable desalination strategy’, and investment in water saving by Sydney Water. Beyond 2015 however, the review found that the water demand-supply balance could change substantially as a result of two principal issues. First, the State Government would have to make decisions in relation to river flows – specifically a decision on the proposal to dedicate water for environmental flow releases from Warragamba Dam was yet to be made. Second, by 2015 population increase may start to drive demand back up, overwhelming the consumption reductions achieved by recent low cost water efficiency measures and recycling schemes. Further, it was still uncertain what impact climate change trends might have on rainfall in the catchment.

Concurrently with the production of the independent interim review of the Metropolitan Water Plan, the NSW Government released its own progress report, which relied heavily on the findings of the independent review.<sup>229</sup> Not surprisingly, the Government’s 2006 progress report was largely self-congratulatory, claiming that its measures had ‘drought-proofed’ Sydney. Within its theme of satisfied accomplishment, the report concentrated on water demand and supply issues, announcing for example that a desalination plant was presently not needed (consistent with a recommendation of the independent review),<sup>230</sup> yet, significantly, was silent on matters of catchment health or management and environmental flows. The final report of the review of the *2004 Water Plan* was published in April 2006.<sup>231</sup> This report confirmed that the package of measures committed and strategies ready for implementation would ensure that the supply-demand balance could be met at least to 2015.

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<sup>228</sup> Ibid, p 8.

<sup>229</sup> NSW Government, *Securing Sydney’s Water Supply – Metropolitan Water Supply, February 2006 Progress Report*, (Sydney, NSW Government, 2006).

<sup>230</sup> The decision of February 2006 not to proceed with construction of a desalination plant for Sydney was inexplicably reversed by the State Government in December 2006 when the Premier announced that plant would be built at Kurnell. No justification was provided by the Government for this policy backflip.

<sup>231</sup> Institute for Sustainable Futures, *Review of the Metropolitan Water Plan: Final Report*, (Sydney, University of Technology Sydney, 2006).



In 2006 the NSW Government released a new Metropolitan Water Plan.<sup>232</sup> Ostensibly produced on the basis of building “on the progress made to date” and reflecting “the significant developments that have occurred since the *2004 Plan* was released”, the 2006 Metropolitan Water Plan arguably offered little of substance in terms of new initiatives. In a classic example of ‘policy recycling’,<sup>233</sup> it was stated that “the *2006 Plan* strengthens the Government’s focus on adaptive management as the best way to secure water supplies in the face of uncertainty.”<sup>234</sup> This approach of ‘adaptive management’ of water supply and demand was reflected in the release of progress reports on the Metropolitan Water Plan in 2007 and 2008.<sup>235</sup> Both progress reports were basically public relations exercises, concentrating on the issues of dams, recycling, desalination and water efficiency – but with little of substance in terms of new initiatives to protect Sydney’s catchments. For a self-styled ‘adaptive plan’,<sup>236</sup> the *2006 Metropolitan Water Plan* was revealingly static with regard to matters such as managing the catchments, with the *2006 Plan* and 2007 and 2008 progress reports all noting the major initiative in this field as being confined to the 2006 gazettal of the *Drinking Water Catchments Regional Environmental Plan No.1* as part of the *Sustaining the Catchments Regional Plan*.

### 7.7.3 Reliance on the statutory planning system

As the lead land use planning agency, the Department of Planning has largely relied upon the existing (but unfortunately underutilised) statutory planning framework of the *Environmental Planning and Assessment Act 1979* to implement regional planning and land management strategies. Within the State’s statutory planning framework environmental planning instruments (EPIs) – particularly regional environmental plans (REPs) – have traditionally been used.<sup>237</sup> Typically, a bioregional approach to natural resource management through REPs has taken the form of regional plans for river catchments. Examples of REPs where a river catchment is the bioregional unit adopted for resource management and planning

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<sup>232</sup> NSW Government, *2006 Metropolitan Water Plan*, (Sydney, NSW Government, 2006), [http://www.waterforlife.nsw.gov.au/about/plan/download\\_the\\_metropolitan\\_water\\_plan](http://www.waterforlife.nsw.gov.au/about/plan/download_the_metropolitan_water_plan), viewed 1 January, 2010.

<sup>233</sup> This refers to the practice of re-announcing old or existent policies as if they are new initiatives.

<sup>234</sup> NSW Government, above n 232, p 7.

<sup>235</sup> Department of Water and Energy, *Metropolitan Water Plan 2007 Progress Report*, (Sydney, DWE, 2007); Department of Water and Energy, *Metropolitan Water Plan 2008 Progress Report*, (Sydney, DWE, 2009).

<sup>236</sup> *Ibid*, p 4.

<sup>237</sup> Although Part 3 Division 3 (‘Regional environmental plans’) of the *Environmental Planning and Assessment Act 1979* was repealed in July 2009, and a number of REPs were abolished, some have been retained, keeping of title of ‘REP’ but now with the status of SEPPs.



purposes, include regional plans for the Hawkesbury-Nepean River<sup>238</sup> and the Georges River<sup>239</sup> (both located in the Sydney Region), the Sydney drinking water catchments,<sup>240</sup> and for rural or mixed use areas such as the Hunter Valley,<sup>241</sup> the Williams River<sup>242</sup> and the Murray River.<sup>243</sup>

A critical restriction on the scope of EPIs however, is their focus on development control of future proposals, and their neglect of broader strategy and existing use management. The significant exception is Sydney's *Drinking Water Catchments Regional Environmental Plan No.1* with its accompanying *Regional Plan Sustaining the Catchments*,<sup>244</sup> and provision for rectification action plans.<sup>245</sup> Some other REPs also seek to take a broader approach, such as the Georges River REP with its regional planning strategy.

While REPs are legally enforceable documents (as are all environmental planning instruments) and so their provisions are legally binding on all relevant planning decisions,<sup>246</sup> individual REPs may be purposively broad in detail or expressed in a non-binding manner so as to be effectively merely indicative or advisory documents; others conversely may be sufficiently specific so as to require stricter compliance in land use decision-making. An example of a broad catchment-based REP is that for the Hunter Valley, whilst the REPs for the Murray River, the Georges River and the Hawkesbury-Nepean River are more 'fine-grained' documents that provide for more detailed planning controls. The Murray River REP (*Murray Regional Environmental Plan No.2 – Riverine Land*) for example, requires that any relevant River Management Plan,<sup>247</sup> and the aims, objectives and specific planning principles of the REP,<sup>248</sup> must be taken into account when making planning decisions.<sup>249</sup>

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<sup>238</sup> *Sydney Regional Environmental Plan No.20 – Hawkesbury-Nepean River (No.2 – 1997)*. (Reg 592 of 1997).

<sup>239</sup> *Greater Metropolitan Regional Environmental Plan No.2 – Georges River Catchment*. (Reg 52 of 1999).

<sup>240</sup> *Drinking Water Catchments Regional Environmental Plan No.1*. (Reg 289 of 2006).

<sup>241</sup> *Hunter Regional Environmental Plan 1989*. (Gazetted 17 March 1989). Repealed by *State Environmental Planning Policy (Repeal of REP Provisions) 2009*, published on the NSW legislation website on 26 June 2009.

<sup>242</sup> *Williams River Catchment Regional Environmental Plan 1997*. (Reg 540 of 1997).

<sup>243</sup> *Murray Regional Environmental Plan No.2 – Riverine Land*. (Reg 121 of 1994).

<sup>244</sup> Department of Planning and the Sydney Catchment Authority, *Sustaining the Catchments – The Regional Plan for the drinking water of Sydney and adjacent regional centres*, (Penrith, Sydney Catchment Authority, 2007).

<sup>245</sup> *Drinking Water Catchments Regional Environmental Plan No.1*, Part 3 – Rectification Action Plans.

<sup>246</sup> *Environmental Planning and Assessment Act 1979*, s.122.

<sup>247</sup> 'River Management Plan' means any development control plan, plan of management, study, strategy, guideline or the like, which has undergone a public participation process, which is consistent with the aims, objectives and principles of this plan and which is endorsed by the Murray-Darling Basin Commission – see *Murray Regional Environmental Plan No.2 – Riverine Land*, Schedule 99.

<sup>248</sup> *Murray Regional Environmental Plan No.2 – Riverine Land*, cl.9. An extensive list of specific planning principles that must be taken into account are contained in cl.10 of the REP.



Within the Sydney Region, the Georges River REP in particular, contains detailed controls over development within the river catchment, presumably because the catchment is situated largely within the urban (i.e. built-up) area of Sydney. As part of the REP-making process, a regional environmental study (RES) was commissioned by the Department of Planning on behalf of a Section 22 Committee (under the EP&A Act) established by the Director of Planning to advise the Minister for Planning on regional planning for the Georges River. The accompanying REP, known as *Greater Metropolitan Regional Environmental Plan No.2 - Georges River Catchment*, applies to parts of the Bankstown, Campbelltown, Canterbury, Fairfield, Holroyd, Hurstville, Kogarah, Liverpool, Rockdale, Sutherland, Wollondilly and Wollongong local government areas which are within the Georges River Catchment – an area of approximately 120,000 hectares.

A third component (along with the RES and REP) in the planning package for the Georges River is a document known as the *Georges River Catchment Regional Planning Strategy*, which establishes the aims and objectives to address the key concerns identified by the Section 22 Committee. The Strategy provides a broad contextual framework for the implementation of the statutory roles identified in the REP and includes management planning, the development of best practice principles, as well as education and conservation requirements. An approach which embraces the principles of integrated (or total) catchment management and ecologically sustainable development is claimed by the Strategy. Yet despite this assertion of incorporating natural resource management, the bulk of the Strategy consists of a development control focused Action Plan, which identifies tasks, key accountabilities and time-frames for completion of those tasks. The tasks are grouped under a number of critical action areas and are individually linked to a performance indicator and lead agency in order to provide mechanisms for monitoring the Strategy. To support regional and local planning, DIPNR, in collaboration with other NSW government agencies, also prepared a number of studies and guidelines to aid decision-making and natural resource management in the Georges River catchment. Included amongst this strategic planning/

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<sup>249</sup> Planning principles under the REP should be applied when:

“(a) a council prepares any local environmental plan, or  
(b) a consent authority determines a development application, or  
(c) a public authority or person proposes to carry out development which does not require development consent but which has the potential to adversely affect the riverine environment of the River Murray.” (*Murray Regional Environmental Plan No.2 – Riverine Land*, cl.8.)



natural resource management element of the Strategy was the production, in conjunction with the NPWS, of the document *Biodiversity of the Georges River Catchment*,<sup>250</sup> which provides a regional context for biodiversity planning.

Lack of successful monitoring and reporting mechanisms had earlier been identified as the critical failure of similar catchment plans and strategies in the Williams, Hawkesbury-Nepean and Murray River systems. It was in the context of this criticism of past attempts at integrated catchment management through regional planning mechanisms and strategies that a new REP was made for the Hawkesbury-Nepean River catchment. Designated as *Sydney Regional Environmental Plan No.20 – Hawkesbury-Nepean River (No.2 – 1997)*, it provides a framework to guide future land use decisions affecting the river and its catchment. It is supported by the Hawkesbury-Nepean Action Plan which sets out a number of specific actions for monitoring the implementation of the plan and a set of tasks needed to improve the health of the river system.<sup>251</sup>

#### **7.7.4 The Sydney drinking water crisis**

The underlying significance of thorough catchment management to sustainability and liveability in the Sydney Region - of which the Hawkesbury-Nepean system is a major component - was graphically demonstrated in the Sydney water contamination scare in August-September 1998. This event also highlighted the failure of the existing water resource management and land use planning mechanisms. In response to the findings of the subsequent inquiry into Sydney's corporatised water supply authority Sydney Water, the NSW Government established a new statutory authority, the Sydney Catchment Authority, and new planning controls for the catchment were introduced.

In times of normal rainfall, the vast bulk (up to 97%) of Sydney's water comes from two catchments at Warragamba and the Upper Nepean.<sup>252</sup> Most of this (about 85%) comes by

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<sup>250</sup> Steller, D. and Bryant, A. (eds.) *Biodiversity of the Georges River catchment: Terrestrial biodiversity*, (Sydney, DIPNR, November 2004), <http://www.planning.nsw.gov.au/PlansforAction/CatchmentsandWaterways/GeorgesRiverCatchment/Terrestrialbiodiversity/tabid/227/Default.aspx>, viewed 11 January 2010.

<sup>251</sup> Department of Urban Affairs and Planning, *Hawkesbury-Nepean – The Action Plan of the Hawkesbury-Nepean Environmental Planning Strategy 1997*, (Sydney, DUAP, 1997).

<sup>252</sup> McClellan, P., *Sydney Water Inquiry: First Interim report – Possible Causes of Contamination*, (Sydney, NSW Premier's Department, August 1998).



pipeline through one facility – the Prospect filtration plant.<sup>253</sup> Drinking water in the Sydney catchment became contaminated in 1998 by the potentially lethal parasites *cryptosporidium* and *giardia*. These are protozoa, a group of micro-organisms that can cause severe illness if above certain levels. They are often resistant to disinfection but must be filtered out of the water, although there is no general agreement on the efficiency of water filtration to remove *cryptosporidium* and *giardia*.<sup>254</sup> Three instances or ‘events’ of high readings of these parasites were recorded in Sydney’s drinking water supply – including near Prospect – between July and September of 1998.<sup>255</sup> Following each of these events of detection of high levels of *cryptosporidium* and *giardia* a series of alerts were issued by NSW Health requiring the population of Sydney to boil water before drinking. Styled the ‘great Sydney water crisis of 1998’,<sup>256</sup> caution was prudent given that in early 1998 international medical knowledge of the two parasites was at a low stage of development,<sup>257</sup> and neither Australia, New Zealand, the US or Canada had national regulations for ‘acceptable’ levels for the parasites, or prescribed monitoring systems.<sup>258</sup> Surprisingly, despite the events of high readings, health alerts, community panic and cost to Sydney Water of the crisis, there were no reported illnesses from this incident.<sup>259</sup>

The NSW State Government established an inquiry, chaired by a prominent environmental lawyer Peter McClellan QC, with wide ranging terms of reference. This included the causes and circumstances of the contamination, management procedures, informing the community, and the wider structural arrangements for the processing, monitoring and supply of water. Five reports were produced over the period August-December 1998 by the McClellan Inquiry.<sup>260</sup> The inquiry was conducted with “speed, thoroughness, determination and a

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<sup>253</sup> McClellan, P., *Sydney Water Inquiry: Third Interim report – Assessment of the Contamination Events and Future Directions for the Management of the Catchment*, October, (Sydney, NSW Premier’s Department, October 1998).

<sup>254</sup> Stein, P.L., ‘The Great Sydney Water Crisis of 1998’ (2000) 123 *Water, Air and Soil Pollution* 419 at 420.

<sup>255</sup> McConnell, A., ‘Post-Crisis Reform and Learning in the Aftermath of the 1998 Sydney Water Crisis’, *School of Economics and Political Science Working Papers*, (Sydney, The University of Sydney, September 2005).

<sup>256</sup> Stein, above n 254.

<sup>257</sup> McConnell, above n 255.

<sup>258</sup> McClellan, P., *Sydney Water Inquiry: Fifth report – Final Report*, Vols. 1 and 2, (Sydney, NSW Premier’s Department, December 1998).

<sup>259</sup> Anxiety was heightened in light of the knowledge that there had been numerous *cryptosporidium* outbreaks around the world in the 1980s and 1990s, including the most severe case in 1993 in the US city of Milwaukee, when 403,000 people became ill as a result of *cryptosporidiosis* and over 100 people died. See: McClellan, P., *Sydney Water Inquiry: First Interim report – Possible Causes of Contamination*, (Sydney, NSW Premier’s Department, August 1998).

<sup>260</sup> The five reports covered (1) possible causes of contamination; (2) the management of the first contamination event in July 1998; (3) health issues and laboratory work; (4) the Prospect plant’s tender process and contract arrangements; and (5) conclusions and recommendations.



willingness to criticise when necessary” and does not appear to have attracted a single criticism.<sup>261</sup> The McClellan Inquiry identified several potential sources of this contamination, as well as other threats to water quality.

The McClellan Inquiry made a number of recommendations regarding regulation and management of the catchments. These were adopted by the NSW Government and included:

- the need for water quality to be the primary consideration in decision-making affecting the catchments;
- the need to develop directions, catchment-wide strategies and water quality objectives to guide management activities and development decisions in the catchments;
- establishment of a catchment authority to oversee management of the catchments;
- immediate implementation of a state environmental planning policy (SEPP) governing new development as an interim measure to protect water quality in the catchments and
- development of a regional environmental plan to replace the SEPP and give statutory force to objectives and strategies for catchment protection.

Implementation of the recommendations of the McClellan Inquiry was rapid. *State Environmental Planning Policy No 58 – Protecting Sydney’s Water Supply* (SEPP 58) took effect on 1 February 1999. The Sydney Catchment Authority (SCA) was established on 2 July 1999. An independent audit of the state of the catchments, as required by the SCA’s legislation,<sup>262</sup> was undertaken by the CSIRO.<sup>263</sup> SCA and the NPWS/DECC jointly prepared a Special Areas Strategic Plan of Management (SASPOM), which applied to the inner catchments – the land surrounding the dams managed by the Authority.<sup>264</sup> The SASPOM was adopted by the Minister for the Environment in February 2007. This strategic plan provides a framework for catchment management within the tracts of land closest to the water storages and identifies the major goals the joint managers (that is, SCA and DECCW) will try to achieve within the Special Areas.

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<sup>261</sup> McConnell, above n 255, p 9.

<sup>262</sup> *Sydney Water Catchment Management Act 1998*, ss. 42 and 42A.

<sup>263</sup> CSIRO, *Audit of the Hydrological Catchments managed by the SCA Final Report to the Minister for the Environment NSW State Government December 1999 Audit*, prepared by CSIRO Land & Water, (Canberra, CSIRO, 1999). Subsequent audits have been undertaken in 2001, 2003, 2005 and 2007; the next is due in 2010 (vide *Sydney Water Catchment Management Act 1998*, s. 42A).

<sup>264</sup> Sydney Catchment Authority, *Special Areas Strategic Plan of Management (SASPOM)*, prepared by the Sydney Catchment Authority and Department of Environment and Conservation, (Penrith, SCA, February 2007), [http://www.sca.nsw.gov.au/\\_data/assets/pdf\\_file/0015/4830/SASPOM07.pdf](http://www.sca.nsw.gov.au/_data/assets/pdf_file/0015/4830/SASPOM07.pdf), viewed 11 January 2010.



### 7.7.5 The Sydney Catchment Authority

Thus it took a water crisis, which seriously undermined public confidence in existing government water resource management and land use planning policies and institutional arrangements, for something resembling an integrated bioregional approach at the catchment level – managed primarily through the Sydney Catchment Authority – to be adopted. The Sydney Catchment Authority commenced operations in July 1999 as a statutory authority under the *Sydney Water Catchment Management Act 1998* (SWCM Act). The Authority was established with the goal of ensuring that the catchment areas and the catchment infrastructure works for Sydney's water supply are managed and protected so as to promote water quality and quantity, and the protection of public health and safety and the environment. In particular, the Authority is charged with managing and protecting the catchment areas and infrastructure works, being a supplier of bulk water, and exercising land use planning concurrence powers to regulate certain activities within or affecting the inner and outer catchment areas.<sup>265</sup>

The Sydney drinking water catchments managed and protected by the SCA cover an area of 16,000 sq. km. and encompass 27 sub-catchments within the Hawkesbury-Nepean, Shoalhaven and Georges rivers. Fifteen local government areas fall within the catchments and they include over 485,000 ha of agricultural land (see *Map 7.3: Sydney's drinking water catchments*). Since its inception, the SCA has played a major land management and planning role on the fringe of Sydney. For example, in the period between 2001 and 2009, the SCA invested \$186 million to protect catchment health.<sup>266</sup>

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<sup>265</sup> Sydney Catchment Authority, *Sydney Catchment Authority Environmental Plan 2006-2011*, (Penrith, SCA, 2009), [http://www.sca.nsw.gov.au/\\_data/assets/pdf\\_file/0017/4418/2006-2011-Environment-plan-Revised-Dec-2009.pdf](http://www.sca.nsw.gov.au/_data/assets/pdf_file/0017/4418/2006-2011-Environment-plan-Revised-Dec-2009.pdf), viewed 19 August 2011, p 3.

<sup>266</sup> Sydney Catchment Authority, *Healthy Catchments Strategy 2009-2012*, (Penrith, SCA, 2009), [http://www.sca.nsw.gov.au/\\_data/assets/pdf\\_file/0009/13896/HCS.pdf](http://www.sca.nsw.gov.au/_data/assets/pdf_file/0009/13896/HCS.pdf), viewed 3 July 2010, p 2.





Map 7.3: Map of Sydney drinking water catchments

Source: Sydney Catchment Authority (2009) *Healthy Catchments Strategy 2009-2012*



As part of its 2006-2010 operating licence the SCA was required to prepare a five year environment plan by 1 September 2006. Published as the *Environment Plan 2006-2010*, it incorporates environmental improvement targets and timetables for the SCA to achieve over the term of the Plan, as mandated by the operating licence.<sup>267</sup> Under schedule 2 of the operating licence the SCA is required to measure and report on a range of catchment and environmental performance indicators. These include indicators of ecological health of the catchments, indicators of the SCA's management of the catchments and indicators of the SCA's impacts on the environment.

While the primary focus of the SCA may be characterized as strategic-based, it does nonetheless have, with one notable qualification, a range of planning and other tools at its disposal to assist in strategy implementation. Legislation under which the SCA was established does not in fact provide it with a wide base of power to regulate activities in the Sydney drinking water catchment.<sup>268</sup> For this reason, the SCA has had to rely on a range of different tools – both the limited regulatory powers it does possess as well as non-regulatory approaches – to control and manage activities within the catchment. These five tools are: (1) a leadership/education approach to change attitudes and perceptions toward the catchment; (2) financial incentives; (3) developing partnerships with other public sector, and private sector, bodies; (4) information provision to land owners and local councils; and (5) regulation – with an approach to enforcement via a prosecutions policy which emphasizes prosecution for the purposes of rectification and remediation rather than for merely punitive purposes.<sup>269</sup> Three primary documents that identify and frame the SCA's approaches are its business plan in the *Healthy Catchments Strategy*,<sup>270</sup> the *Healthy Catchments Program* and the *Drinking Water Catchments Regional Environmental Plan No.1*. Each of these documents is further discussed below.

The *Healthy Catchments Strategy 2009-2012* identifies the SCA's direction and priorities for both preventative and remediation works in the catchments in this three-year period. It explains how the organization determines its priorities and how these are addressed and

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<sup>267</sup> Sydney Catchment Authority, above n 265, p 4.

<sup>268</sup> Interview with John Whitehouse, Board Member, Sydney Catchment Authority (Sydney, 21 March 2007).

<sup>269</sup> Interview with John Whitehouse, Board Member, Sydney Catchment Authority (Sydney, 21 March 2007).

<sup>270</sup> Sydney Catchment Authority, *Healthy Catchments Strategy 2009-2012*, (Penrith, SCA, 2009), [http://www.sca.nsw.gov.au/\\_data/assets/pdf\\_file/0009/13896/HCS.pdf](http://www.sca.nsw.gov.au/_data/assets/pdf_file/0009/13896/HCS.pdf), viewed 3 July 2010.



evaluated.<sup>271</sup> The *Healthy Catchments Strategy* sets direction for the annual catchment activity work plan known as the *Healthy Catchments Program*. In 2009-10 for example, the SCA was to invest over \$21 million across five initiatives: rural lands; sewerage and stormwater; land management; statutory and regulatory operations; and catchment partnerships.<sup>272</sup> The SCA addresses its identified priorities through a series of strategic initiatives that involve a combination of education, compliance, land use planning and incentives.<sup>273</sup> The priorities are delivered through the SCA's annual *Healthy Catchments Program*, which is based on: (a) its priorities (i.e. the highest risk pollution source issues such as grazing, intensive animal production and on-site wastewater management across the various subcatchments of the REP – see *Map 7.4: Location of the top 100 priority pollution source issues across the catchments*); (b) the organisation's approach to managing catchments for water quality outcome; (c) a collaborative approach in dealings with other organizations and individuals; and (d) the most suitable and cost effective actions.<sup>274</sup> The activities of the Healthy Catchments Program contribute to the NSW State Plan's environment priorities and to achieving numerous state-wide resource management targets such as the *Hawkesbury Nepean Catchment Action Plan 2007-2016*, the *Southern Rivers Catchment Action Plan 2006-2016*, and the NSW Natural Resource Commission's *NSW Natural Resource Management Monitoring, Evaluation and Reporting Strategy*.<sup>275</sup>

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<sup>271</sup> Ibid, p 9.

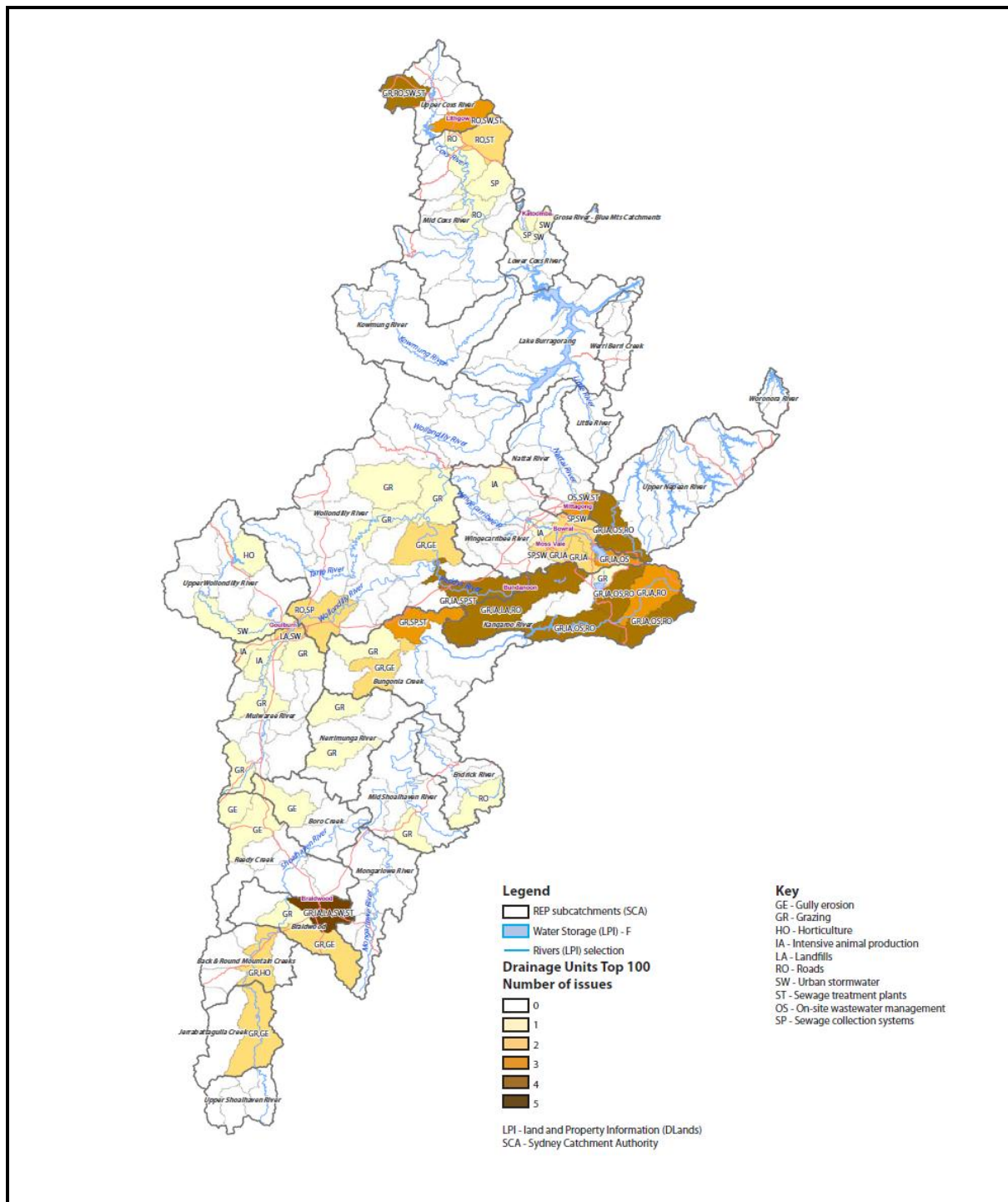
<sup>272</sup> Ibid, p 3.

<sup>273</sup> Ibid, p 17.

<sup>274</sup> Ibid, p 17.

<sup>275</sup> For a full list of state-wide resource targets related to the Healthy Catchments Program, see Appendix 2 of the *Healthy Catchments Strategy 2009-2012*, [http://www.sca.nsw.gov.au/\\_data/assets/pdf\\_file/0009/13896/HCS.pdf](http://www.sca.nsw.gov.au/_data/assets/pdf_file/0009/13896/HCS.pdf), viewed 3 July 2010.





Map 7.4: Location of the top 100 priority pollution source issues across the catchments

Source: Sydney Catchment Authority (2009) *Healthy Catchments Strategy 2009-2012*

The SCA's catchment management and protection activities are brought together under its *Healthy Catchments Program*, which consists of six key strategies or initiatives: a sewerage strategy, a riparian strategy, an urban stormwater strategy, a rural lands strategy, a



compliance strategy, and a SCA lands strategy.<sup>276</sup> To these may be added a seventh initiative: a catchment information strategy.<sup>277</sup> Implementation of the *Healthy Catchments Program* is facilitated by the commitment of approximately \$13 million per year by the SCA to a variety of programs and works including grants and assistance schemes, community/industry assistance and education programs, and regulatory measures.<sup>278</sup> Under the sewerage strategy for example, the Accelerated Sewerage Program is the SCA's largest investment in the catchments to date. The organisation has invested \$37.7 million to upgrade sewage treatment plants and construct new sewerage systems for eight council projects.<sup>279</sup> Focus of the riparian strategy is the encouragement of revegetation of stream sides and rehabilitation of erosion areas primarily through a funding program. Here, the SCA has a catchment areas protection scheme where it provides part-grants and assistance to landowners and landowner groups for streamside riparian works, which has had a strong level of interest that has resulted in a significant take up rate.<sup>280</sup>

In terms of information provision, the SCA has devoted significant resources into the operationalisation of the Drinking Water Catchments REP. Central here has been the establishment of the *Neutral or Beneficial Effect on Water Quality Assessment Guidelines* to support the REP.<sup>281</sup> The SCA has provided technical guidance, developed computer programs to stimulate the neutral or beneficial effect ('NorBE') assessment (discussed further below), and given local councils access to its GIS data bases to assist them in the assessment of development applications.<sup>282</sup> This approach has helped the implementation of the REP with little institutional or community opposition: the REP was not primarily concerned with the SCA taking a regulatory role, and in fact the organisation's concurrence role is diminished under the REP compared to what it was under the previous SEPP.<sup>283</sup> This was because the

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<sup>276</sup> Sydney Catchment Authority, above n 270.

<sup>277</sup> Interview with John Whitehouse, Board Member, Sydney Catchment Authority (Sydney, 21 March 2007).

<sup>278</sup> Sydney Catchment Authority, *Healthy Catchments Program*, (Penrith, SCA, 2008), <http://www.sca.nsw.gov.au/the-catchments/healthy-catchments-program>, viewed 30 December 2008.

<sup>279</sup> Sydney Catchment Authority, above n 270, p 26.

<sup>280</sup> Interview with John Whitehouse, Board Member, Sydney Catchment Authority (Sydney, 21 March 2007).

<sup>281</sup> Sydney Catchment Authority, *Sustaining the Catchments: Neutral or Beneficial Effect on Water Quality Assessment Guidelines*, (Penrith, SCA, 2006), <http://www.sca.nsw.gov.au/publications/publications/136/NorBEdoc.pdf>, viewed 12 February 2011.

<sup>282</sup> The NorBE electronic assessment tool is a web-based decision making tool available to councils that records a NorBE assessment based on the guidelines. It is the first phase in the SCA's delivery of web-based tools to councils to help them meet the requirements of the Regional Plan. See: Sydney Catchment Authority, *Information for councils*, (Penrith, SCA, 2010), <http://www.sca.nsw.gov.au/publications/publications/136/information-for-councils>, viewed 3 July 2010.

<sup>283</sup> Under *State Environmental Planning Policy No.58 – Protecting Sydney's Water Supply*, cl.11, the concurrence of the Chief Executive of the Sydney Catchment Authority was required for a range of



SCA was interested in getting local councils to administer the ‘neutral or beneficial’ test as part of their normal development assessment process under their LEPs, leaving the SCA to deal only with particularly problematic development proposals.<sup>284</sup>

To ensure future land use protects water quality, all proposed developments that require consent under a council’s LEP need to demonstrate a neutral or beneficial effect on water quality. The ‘neutral and beneficial’ test required in the assessment of proposals under the regional plan is effectively an environmental offsets mechanism. Under the REP, many proposals only need to undertake a simple assessment to identify potential risks on water quality (e.g. sediment from construction) and ways to avoid any adverse impact from those risks (e.g. by applying current recommended practices). Possible impacts on both surface and groundwater are considered as part of the neutral or beneficial effect on water quality assessment. Landholders only need to demonstrate a neutral or beneficial effect on water quality for new developments, expansions of existing developments, or changes in activity on their land where these require consent under a LEP. The neutral or beneficial effect on water quality test does not however apply to existing land uses.<sup>285</sup>

#### **7.7.6 Sustaining the Catchments Regional Plan and the Drinking Water Catchments REP**

The overarching strategic and statutory document guiding the management of Sydney’s drinking water catchments is *Sustaining the Catchments – the Regional Plan for the drinking water catchments of Sydney and adjacent regional centres* (the ‘regional plan’).<sup>286</sup> The

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development (other than State significant development) listed in Schedules 1 and 2 of the SEPP. Conversely, the *Drinking Water Catchments Regional Environmental Plan No.1* confers discretion on a consent authority as to whether the concurrence of the Chief Executive is required to carry out development on land in the hydrological catchment. Specifically, under cl.28(3) of the REP the concurrence of the Chief Executive is not required if the consent authority is satisfied that the proposed development:

- “(a) has no identifiable potential impact on water quality, or
- (b) will contain any such impact on the site of the development and prevent it from reaching any watercourse, waterbody or drainage depression on the site, or
- (c) will transfer any such impact outside the site by treatment in a facility and disposal approved by the consent authority (but only if the consent authority is satisfied that water quality after treatment will be of the required standard).”

<sup>284</sup> Interview with John Whitehouse, Board Member, Sydney Catchment Authority (Sydney, 21 March 2007).

<sup>285</sup> See: Sydney Catchment Authority, *Regional Plan - Assessment and approval of development and activities*, (Penrith, SCA, 2010), <http://www.sca.nsw.gov.au/publications/publications/136>, viewed 12 February 2011; Sydney Catchment Authority, *Neutral or Beneficial Effect on Water Quality Assessment Guidelines*, (Penrith, SCA, 2006), <http://www.sca.nsw.gov.au/publications/publications/136/NorBEdoc.pdf>, viewed 12 February 2011; *Drinking Water Catchments Regional Environmental Plan No.1*, cl.24.

<sup>286</sup> Sydney Catchment Authority, *Regional Plan*, (Penrith, SCA, 2008), <http://www.sca.nsw.gov.au/the-catchments/regional-plan>, viewed 30 December 2008.



regional plan comprises three key elements or parts: (i) statutory instruments consisting of an REP and Ministerial Direction under s 117 of the EP&A Act; (ii) Overview and Action Plan; and (iii) supporting guidelines and tools. In exercising its land use planning activities, the SCA aims to ensure that land development in the catchment does not have an adverse impact on water quality.<sup>287</sup>

In terms of statutory instruments, the original relevant EPI was *State Environmental Planning Policy No.58* (SEPP 58), which commenced on 1 February 1999 as an interim measure until an REP could be gazetted. A SEPP was recommended as a stop-gap measure as the applicable plan-making procedures under the EP&A Act meant this could be prepared and adopted expeditiously, whereas an REP would take longer to finalise, as was indeed found to be the case. A first draft of the regional plan was exhibited between October 2000 and March 2001 and drew over 400 submissions. A revised draft was placed on public exhibition between March and July 2004, to which much fewer submissions – 43 only – were received. Finally the *Drinking Water Catchments Regional Environmental Plan No.1* (the REP) was gazetted on 9 June 2006 and commenced on 1 January 2007. A Ministerial Direction under s 117 of the EP&A Act requires councils reviewing their LEPs to consider any new information gained through strategies in the regional plan, particularly strategic land and water capability assessments.<sup>288</sup>

The REP was prepared under the EP&A Act as a requirement of the SWCM Act. The REP covers land in the hydrological catchment and requires that new development under Part 4 of the EP& Act not be approved unless the consent authority is satisfied that the proposal will have a *neutral or beneficial effect* (NorBE) on water quality.<sup>289</sup> This obligation was a key recommendation of the McClellan Inquiry.<sup>290</sup> A council must seek and obtain the

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<sup>287</sup> Sydney Catchment Authority, above n 265, p 5.

<sup>288</sup> Ministerial Direction 5.2 Sydney Drinking Water Catchments – see Department of Planning, *Revised local planning directions: overview of key changes*, (Sydney, DoP, July 2007), <http://www.planning.nsw.gov.au/LocalEnvironmentalPlans/LocalPlanningDirections/tabid/248/Default.aspx>, viewed 11 January 2010.

<sup>289</sup> As specified in cl.28(3) of the REP, a ‘**neutral or beneficial effect on water quality**’ means development that:

- (a) has **no** identifiable impact on water quality, or
- (b) will **contain** any such impact on the site of the development and prevent it from reaching any watercourse, waterbody or drainage depression on the site, or
- (c) will **transfer** any such impact outside the site by treatment in a facility and disposal approved by the consent authority (but only if the consent authority is satisfied that water quality after treatment will be of the required standard).

<sup>290</sup> McClellan, P., above n 258.



concurrence of the SCA before it can issue a consent for a development application when, as the consent authority, it is not satisfied that a proposed development has a neutral or beneficial effect on water quality.<sup>291</sup> For new activities under Part 5 of the EP&A Act, the REP requires that an assessment of whether the activity will have a neutral or beneficial effect on water quality must be included in an environmental assessment.<sup>292</sup> Although not specified in the REP, the neutral or beneficial effect on water quality may provide a framework for consideration for major projects under Part 3A of the EP&A Act. The Minister for Planning (or Planning Assessment Commission) must determine major projects, and it is at the Minister's discretion which water quality test will be applied to such projects.<sup>293</sup>

The second part of the regional plan consists of the Overview and Action Plan, produced in September 2007.<sup>294</sup> The Action Plan includes catchment management strategies and actions to address a number of priority issues for improved catchment management that have emerged from both the assessment of the catchments and input from stakeholders. The priority issues identified are: (a) data gaps and inconsistencies in existing information; (b) future risks to catchment health and water quality; (c) impacts from existing land uses and activities; and (d) fragmentation of responsibilities and resources among government agencies, and costs of protecting the catchments for water consumers.<sup>295</sup>

Ten catchment management strategies are identified in the Action Plan. These are linked with the four priority issues listed above and relate to:

- Catchment information (which includes the following strategies: catchment management strategy 1 – catchment information system; catchment management strategy 2 – strategic land and water capability assessment; catchment management strategy 3 – current recommended practices; catchment management strategy 4 – knowledge sharing and education).
- Strategic planning (comprising catchment management strategy 5 – area management planning; and catchment management strategy 6 – review of local environmental plans).

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<sup>291</sup> *Drinking Water Catchments Regional Environmental Plan No.1*, cl. 26.

<sup>292</sup> *Drinking Water Catchments Regional Environmental Plan No.1*, cl. 27.

<sup>293</sup> Sydney Catchment Authority, above n 281, p 6.

<sup>294</sup> Sydney Catchment Authority, *Sustaining the Catchments. Regional Plan – Action Plan*, (Penrith, SCA, 2007).

<sup>295</sup> *Ibid*, p i.



- Development assessment and approval (catchment management strategy 7 – future development protecting water quality).
- Rectification action plans (catchment management strategy 8 – rectification action planning).
- Grants and incentives (catchment management strategy 9 – grants and incentives).
- Monitoring, evaluation and reporting (catchment management strategy 10 – monitoring, evaluation and reporting).<sup>296</sup>

A particular strength of the regional plan's Action Plan is that detailed responsibilities and institutional arrangements have been devised to facilitate its successful operation. Each of the ten catchment management strategies and related priorities in the Action Plan has its own set of specific actions. Implementation of each of the regional plan's actions is assigned to a lead agency and, where required, support required from other agencies and the community is also identified. For example, as one of its functions, the regional plan sets up a framework for improved strategic planning across the catchments, so as to address the priority issue of managing future risks to catchment health and water quality. In relation to strategic planning, the Action Plan contains two specific catchment management strategies, namely catchment management strategy 5 – area management planning, and catchment management strategy 6 – LEP reviews. Several actions are listed under each of these two strategies. Actions for catchment management strategy 5 – area management planning, consist of first, the development of property management plans on private lands in the drinking water catchments (including by the utilisation of incentive mechanisms, such as linking to approvals, grants, funding and rectification action plans), and second, the review or preparation of public land management plans to ensure their consistency with the regional plan. Responsibility for implementing different components of these actions is conferred on appropriate lead agencies (for example in respect to private lands DECCW has responsibility for the development of a property management planning approach to drinking water catchments, whilst the SCA is required to develop necessary incentive mechanisms; responsibility for the development of public land management plans rests with DECCW, DPI, the Department of Lands and local councils). Support agencies to assist in the implementation for these actions are also identified, as is the timing for undertaking each of these tasks.<sup>297</sup> One defining characteristic

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<sup>296</sup> Ibid.

<sup>297</sup> Ibid, p 8.



of the Action Plan therefore, is that it is a plan which seeks to integrate functions of various State and local agencies.

Overall, the SCA would appear to have achieved a level of effectiveness in the planning and management of Sydney's catchments not enjoyed previously by other organisations.<sup>298</sup> Several factors have contributed to this assessment. First, there has been little community or institutional opposition or political controversy in response to the activities of the SCA compared, for example, with the experience of former organisations such as DIPNR and DNR when implementing native vegetation policy. This was because there was no acceptance by these agencies of the changed ideology within the community, away from the traditional 'command and control' approach. As a consequence there had been no funding, no partnerships, very little information, and a heavy emphasis on enforcement and prosecution.<sup>299</sup> Here, the funding arrangements available through the SCA have been advantageous. For example, as part of its *Healthy Catchments Program*, the SCA's riparian strategy encourages the revegetation of stream sides and rehabilitation of erosion areas, primarily through funding available to landowners. SCA has a catchment area protection scheme in place whereby it provides part-grants and assistance to landowners and landowner groups for streamside riparian works, which has enjoyed strong interest and recorded a high take-up rate.<sup>300</sup> Second, the SCA benefits from a manageable scale of operation, whereby "the scale is not too small to mean that it does not actually have an influence, but not too broad as to make it too complex, too difficult to actually manage."<sup>301</sup> Third, the SCA has relatively limited legislative – that is direct regulatory – powers, which means that it is not perceived as overly intruding on the traditional administrative responsibilities of other agencies. This has meant that there have been few 'turf wars' and general acceptance of the SCA by other State Government agencies and local councils.<sup>302</sup> Part of the reason for this may be because the focus of the SCA is on pollution and water quality and not, for example, biodiversity, which arguably involves many more agencies and wider interests.

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<sup>298</sup> Interview with John Whitehouse, Board Member, Sydney Catchment Authority (Sydney, 21 March 2007).

<sup>299</sup> Interview with John Whitehouse, Board Member, Sydney Catchment Authority (Sydney, 21 March 2007).

<sup>300</sup> Interview with John Whitehouse, Board Member, Sydney Catchment Authority (Sydney, 21 March 2007).

<sup>301</sup> Interview with John Whitehouse, Board Member, Sydney Catchment Authority (Sydney, 21 March 2007).

<sup>302</sup> Interview with John Whitehouse, Board Member, Sydney Catchment Authority (Sydney, 21 March 2007).



The SCA has been assigned with a “complex and demanding mandate in Integrated Catchment Management (ICM)”,<sup>303</sup> by which it “is charged to ensure that the catchment areas and catchment infrastructure are managed so as to promote water quality, the protection of public health and safety and the protection of the environment.”<sup>304</sup> Yet despite the SCA consistently rating well in the independent audits required by its legislation, and little apparent friction to its operations from other agencies, the problems of a fragmented institutional, strategic and regulatory framework were still evident, prompting the CSIRO to make the following primary recommendation in its 2001 audit:

“A whole-of-catchment approach to integrated catchment management be implemented as soon as possible. To give this effect there will need to be a reconstitution of institutional arrangements and responsibilities so as to provide a single authority responsible for the planning and management of the hydrological catchments. This will require unambiguous legislation supported by well-defined, effective and adequately resourced institutional arrangements.”<sup>305</sup>

The analysis in Chapter 6, supported by some of the findings in this chapter, suggest that rather than improving over past decade, the fragmentation caused by unceasing ministerial, bureaucratic and legislative change has exacerbated, making meaningful gains in natural resource and conservation-based urban growth management in Sydney more difficult. This situation has not been assisted by growing concerns over the sustainability of Sydney’s water resources.

## 7.8 Conclusion

This relatively lengthy analysis of State level policy and legislation relating to managing natural resource values in the context of Sydney’s urban development reveals three related elements of State public policy in this field. First is the number and range of initiatives – various tools and mechanisms – that have been attempted in recent years. Second is that there has been mixed success in terms of the implementation or outcomes of these policy and legislative forays. Third, policy options that are available to government – in particular TDR,

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<sup>303</sup> CSIRO, *Audit of the Sydney Drinking Water Supply Catchments managed by the Sydney Catchment Authority. Final Report to the Minister for the Environment, NSW State Government*, (Canberra, CSIRO, November 2002), p 6,  
[http://www.sca.nsw.gov.au/data/assets/pdf\\_file/0005/4298/SCA\\_2002\\_Audit\\_Final\\_Report\\_Nov.pdf](http://www.sca.nsw.gov.au/data/assets/pdf_file/0005/4298/SCA_2002_Audit_Final_Report_Nov.pdf) ,  
viewed 13 April 2011.

<sup>304</sup> Ibid, p 6.

<sup>305</sup> Ibid, p 1.



acquisition and biocertification – have, for various reasons, not been pursued, much to the detriment of a holistic approach to urban growth management in this State.

Considered in the next chapter are approaches undertaken at local government level in NSW. Given the policy and regulatory interconnections that exist between State and local government in NSW, many of these involve local implementation of State-imposed approaches (for example, land use zoning through the Standard Instrument). However, there are several natural resource and growth management initiatives which are peculiar to specific local councils or have been further progressed than at State level, which warrant attention and acknowledgement.



# 8

## RECENT LOCAL GOVERNMENT APPROACHES TO URBAN GROWTH MANAGEMENT IN SYDNEY

### 8.1 Introduction

Chapter 7 examined a number of recent State Government planning, natural resource and environmental policy tools or mechanisms that have implications for urban growth management in Sydney. Considered in this chapter are a range of similar tools used by several local councils to manage urban growth. These are discussed under the broad policy approaches of strategic planning, zoning and other statutory development controls, and incentive schemes involving acquisition and market-based mechanisms (which includes acquisition of land and development ‘rights’, as well as financial and planning incentives provided to landowners and developers). A positive aspect of the analysis in this chapter is that many of the tools are interrelated or integrated. For example, a great deal of the strategic planning investigations undertaken by local councils has been utilised to inform, and have subsequently found expression in, statutory controls such as the council’s LEPs and DCPs. Also evident from this analysis is the efforts by several councils to link planning mechanisms they have adopted to a larger State-devised regional approach to the particular issue in question (for example, biodiversity conservation, catchment management and water quality protection). As a consequence, arguably a geographically more extensive and integrated approach is being implemented by local government in the planning and management of natural resources.

On a more challenging note, a theme of this thesis which is also evident in this chapter is the problem of singular reliance on land use zoning as an urban growth management tool in the face of landowners’ perceptions regarding development rights and legal uncertainty



surrounding potential compensation for down-zoning of land – that is, for injurious affection. How to overcome this situation is a challenge that needs to be resolved by government if urban growth planning and management is to achieve natural resource conservation.

Factors limiting the ability of local government to adequately manage the environmental impacts of urbanisation are acknowledged, though they are not the focus of this thesis. These include barriers in terms of capacity, commitment/engagement and coordination to local government management of the environment, particularly by non-urban councils,<sup>1</sup> and the need to implement alternative models of governance to ensure adequacy of service delivery and fundamental local democracy.<sup>2</sup>

Councils considered in this chapter include Camden, Wingecarribee, Shoalhaven, Hornsby, The Hills, Hawkesbury and Penrith councils. As with the preceding two chapters, the discussion and findings in this chapter rely heavily on interviews undertaken with officers from each of these councils.

## **8.2 Local strategic planning**

A fundamental aim of local strategic planning should be to maintain existing land uses, unless sound planning justification exists for their change. In terms of managing the growth of Sydney, this includes maintaining the present boundaries and impacts of urbanization – the ‘urban footprint’ of Sydney – through appropriate strategic policy decisions. Several local councils located on the fringe of Sydney have relied on a robust strategic planning approach to shape their statutory planning controls – in other words the relevant studies are undertaken first and thence the appropriate management plans, LEPs and DCPs are prepared. At the outset it should be pointed out however, that while a strategic approach can seek to plan for and manage future land use, it generally cannot address existing uses – hence there is the need for other mechanisms such as regulation, incentives and education to reduce the environmental impact of existing land uses. While several Sydney-fringe councils are considered in this discussion of local strategic planning, some emphasis is placed on Camden

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<sup>1</sup> Pini, B., ‘Australian Rural Local Governments and Environmental Sustainability: An Evaluation of Progress’ (2009) 68(2) *The Australian Journal of Public Administration* 182.

<sup>2</sup> Dollery, B. and Johnson, A., ‘Enhancing Efficiency in Australian local Government: An Evaluation of Alternative Models of Municipal Governance’ (2005) 23(1) *Urban Policy and Research* 73.



Council as it is the recipient of most of the future urban development in the South West Growth Centre.

### 8.2.1 Wingecarribee Shire Council

The planning basis of managing for urban growth in Wingecarribee LGA is its strategic plan *Wingecarribee Our Future*,<sup>3</sup> adopted by Council in 2002.<sup>4</sup> This document was designed to inform the basis of the zoning of rural land as part of the production of Council's new LEP.<sup>5</sup> This culminated in the publication of the *Wingecarribee Local Environmental Plan 2010*,<sup>6</sup> and relevantly for the present analysis, the related *Rural Lands Development Control Plan*.<sup>7</sup> The Wingecarribee LEP complies with the DoP's 'Standard LEP template', and some of its relevant statutory provisions are further discussed below in Section 8.3.1.

The *Wingecarribee Our Future Strategic Plan 2002* used an 'Ecological Setting' approach for the description of all land in the council area, "classifying it in accordance with the natural ecological characteristics and processes that are present on that land, taking into account the extent to which land uses have influenced natural ecological processes."<sup>8</sup> Land which was outside the towns or villages was attributed to either the 'Natural Bushland Ecological Setting'<sup>9</sup> or the 'Rural Ecological Setting',<sup>10</sup> depending on its overall appearance

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<sup>3</sup> Interview with Mark Pepping, Manager, Strategic Planning, Wingecarribee Council (Mittagong, 17 August 2007).

<sup>4</sup> Wingecarribee Council, *Wingecarribee Our Future Strategic Plan*, (October 2002), <http://www.wsc.nsw.gov.au/files/3551/File/Part2OverviewandRecommendations.pdf>, viewed 6 July 2010.

<sup>5</sup> Wingecarribee Shire Council, *Rural Lands Development Control Plan*, adopted 11 August 2010, p.3, <http://www.wsc.nsw.gov.au/planning/12865/14003.html>, viewed 19 March 2011.

<sup>6</sup> Published on the NSW Government Legislation website 16 June 2010.

<sup>7</sup> Wingecarribee Shire Council, above n 5.

<sup>8</sup> Ibid, p 3.

<sup>9</sup> Ordinarily, the Natural Bushland Ecological Setting applies to land that is:

- "in private ownership with a contiguous area of more than 10 hectares, or
- a National Park, State Recreation Area or Bushland Reserve, or
- Special Drinking Water Catchment Area owned or controlled by the Sydney Catchment Authority or the Council." (Wingecarribee Shire Council, 2010, *Rural Lands Development Control Plan*, adopted 11 August 2010, p. 3, available at: <http://www.wsc.nsw.gov.au/planning/12865/14003.html>, viewed 19 March 2011).

<sup>10</sup> The Rural Ecological Setting is described in the following terms:

"There are extensive areas of land within the Shire that display a general rural or agricultural land use character. Typical land uses include grazing; vineyards; orchards; potato farming; turf farming and other cropping; dams; rural-residential development (on holdings generally up to 40 hectares); local rural industries such as wineries, limited tourism accommodation and recreation activities ... It is important to note that potentially significant (critical) ecological resources have been identified as occurring within different areas of the rural ecological setting, across the whole of the Shire. These include:

- Endangered Ecological Communities as defined by the NSW Scientific Committee;



and assessment of ecological value. The distribution of the Natural and Rural Ecological Settings, together with the distribution of the various classes of agricultural land mapped by the (former) NSW Department of Primary Industries, provided the basis for the allocation of rural land to the relevant zones under the Wingecarribee LEP 2010. Further, related to *Wingecarribee Our Future* and the consequent strategic planning process derived from this document, was the recognition of the need to implement a number of key strategic planning issues – including biodiversity conservation, water quality, agricultural land and scenic landscape protection (the latter because the rural character of Wingecarribee provides an economic base for tourism) – in appropriate statutory planning controls such as Council’s LEP and DCPs.<sup>11</sup>

Issues relating to natural resources – biodiversity, water, agricultural land etc – are of importance in Wingecarribee. Approximately 90% of Wingecarribee Shire falls into drinking water catchment areas, so regular consultation with the Sydney Catchment Authority is a feature of the Council’s planning activities.<sup>12</sup> Council has undertaken a biodiversity study which mapped all the vegetation communities in the shire, as well as mapping all the creeks and rivers, to help define where future urban growth should be directed. Produced from this exercise were a number of ‘overlay maps’ or ‘environmental layers’ relating to biodiversity and water, to operate in conjunction with the 1989 LEP. It was Council’s expectation that these overlay maps would be approved by Parliamentary Counsel and the DoP for incorporation in the new comprehensive LEP – which was subsequently confirmed with the publication of the Wingecarribee LEP 2010 in June 2010.

Specifically, the biodiversity and water protection investigations undertaken by Wingecarribee Council culminated in a series of maps which are now collectively given

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- Known threatened species (Threatened Species Conservation Act and Wingecarribee Biodiversity Study);
  - Regional and Local Primary Flora and Fauna Habitat Corridors (Wingecarribee Biodiversity Study);
  - Core Flora and Fauna Habitat (meaning natural bushland with only moderate – low levels of disturbance with an area greater than 10 hectares when located in a rural small-holdings locality only);
  - Wetlands (Wingecarribee Wetlands Management Strategy); and
  - Riparian land (WLEP based on Sydney Catchment Authority’s Strategic Land and Water Capability Assessments).<sup>29</sup>

(Wingecarribee Shire Council, 2010, *Rural Lands Development Control Plan*, adopted 11 August 2010, pp. 5-6, <http://www.wsc.nsw.gov.au/planning/12865/14003.html>, viewed 19 March 2011).

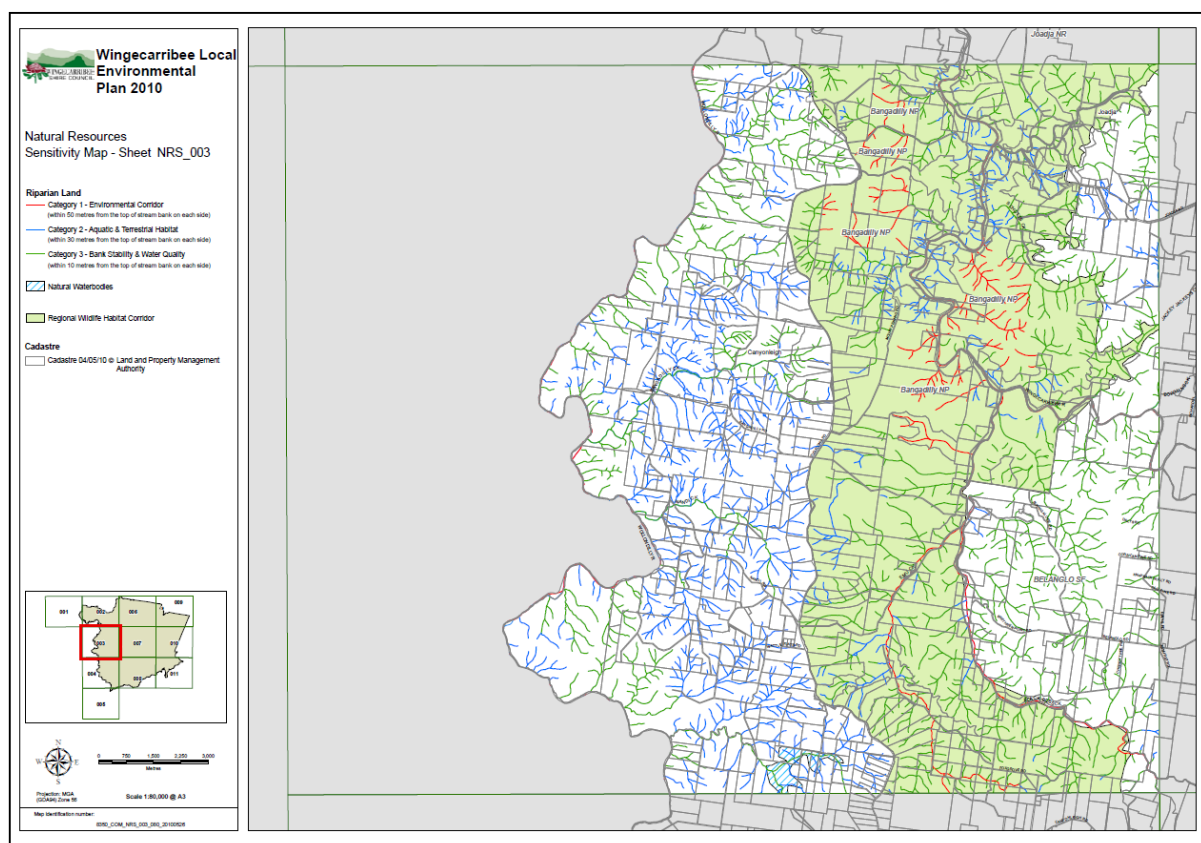
<sup>11</sup> Interview with Mark Pepping, Manager, Strategic Planning, Wingecarribee Council (Moss Vale, 17 August 2007).

<sup>12</sup> Interview with Mark Pepping, Manager, Strategic Planning, Wingecarribee Council (Moss Vale, 17 August 2007).



effect as the ‘Natural Resources Sensitivity Map’ (refer Map 8.1) and specific ‘Additional Local Provisions’ in the Wingecarribee LEP 2010. Streams in the Shire are mapped and categorized as either Category 1, 2 or 3 streams, referring to categories utilized by the former DNR. Significant biodiversity resources are mapped in part in the form of a ‘regional wildlife habitat corridor’ which is also contained in Illawarra REP No.1.<sup>13</sup> The purpose of the corridor is to link biodiversity regions contained in the Blue Mountains national parks with Morton National Park, the Nattai National Park and Bargo State Recreation Area.<sup>14</sup> The operation of these environmental ‘overlay maps’ and local provisions from a regulatory perspective are discussed further in Section 8.3 below.

**Map 8.1: Extract from Natural Resources Sensitivity Map,  
Wingecarribee Council**



Source: Wingecarribee Local Environmental Plan 2010.

<sup>13</sup> Under the *Illawarra Regional Environmental Plan No.1* restrictions are imposed on development “on land shown on the map as a wildlife corridor” (cl.15(1)), and “a draft local environmental plan applying to land shown on the map as wildlife corridor shall not alter the provisions in existing planning instruments applying to the land if ... such new provisions would jeopardise the function of the corridor” (cl.17).

<sup>14</sup> Interview with Mark Pepping, Manager, Strategic Planning, Wingecarribee Council (Moss Vale, 17 August 2007).



## 8.2.2 Shoalhaven City Council

Shoalhaven City Council, which adjoins Wingecaribbee Shire Council, has taken a remarkably similar approach to environmental mapping informed by sound local strategic planning. Derived from its Rural Plan,<sup>15</sup> Council has included in its present comprehensive LEP, the *Shoalhaven Local Environmental Plan 1985*,<sup>16</sup> a zone overlay called ‘land of ecological sensitivity’ (clause 21 of the LEP – refer Table 8.1 below). This provision is one of several clauses that comprise part of the LEP labeled ‘Division 5 – Environmental management’. Provisions in this division include land of ecological sensitivity; vegetation linkage; protection of streams; water catchment areas; development within the hydrological catchment involving intensive plant growing; steep lands; soil, water and effluent management; danger of bushfire; and development of flood liable land. Land of ecological sensitivity appears on the LEP map as a hatched area which applies over lands, sitting on top of its zone and, like other clauses under Division 5 of the LEP, imposes additional development controls above those found under the relevant zoning provisions.

**Table 8.1: Extract from Shoalhaven Local Environmental Plan 1985**

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### **Division 5: Environmental management**

#### **21 Land of ecological sensitivity**

- (1) This clause applies to land shown on the map by distinctive hatching. That land is taken to be land of ecological sensitivity.
  - (2) The objective of this clause is to minimize adverse impacts of development on natural features, including flora, fauna, landforms and other physical features, and ecological processes.
  - (3) Despite clause 9 [Zone objectives and development control table], the consent of the Council is required for any development, including forestry and agriculture, on land to which this clause applies.
  - (4) In deciding whether to grant consent, the Council must take into account:
    - (a) the objectives of this clause; and
    - (b) the adequacy of the measures proposed by the applicant to avoid, mitigate or remedy any adverse effects of the proposed development on the ecological values of the land and other land in its vicinity.
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<sup>15</sup> *Shoalhaven Local Environmental Plan 1985 (Amendment No.127)*; gazetted 16 July 1999.

<sup>16</sup> *Shoalhaven Local Environmental Plan 1985*, gazetted 17 May 1985,  
<http://www.shoalhaven.nsw.gov.au/council/pubdocs/PlanningDocs/LEP1985.pdf>, viewed 9 July 2010.



The ‘land of ecological sensitivity’ provision came from a number of sources – but most particularly from the existing wildlife habitat corridors identified in the *Jervis Bay Regional Environmental Plan No.1* and the *Illawarra Regional Environmental Plan No.1*.<sup>17</sup> Additional controls found in the Shoalhaven LEP in relation to the hydrological catchment are also contained in the Drinking Water Catchments REP. For example, development in the form of intensive plant growing within the hydrological catchment as defined by the Drinking Water Catchments REP requires development consent.<sup>18</sup> Council has found that a key benefit of bringing such controls down from the REPs and including them in LEPs is that it heightens landowners’ awareness of lands of significant environmental quality.<sup>19</sup>

### 8.2.3 Hornsby Shire Council

Hornsby Shire Council is another local government authority on the fringe of Sydney that has invested significantly in strategic planning activities to provide a solid natural environment resource data base on which to inform its planning and land management decision-making. For example, Hornsby Council has recently updated its maps and GIS of vegetation communities as part of its *Biodiversity Conservation Strategy*.<sup>20</sup> Included in the Biodiversity Strategy is identification of key threatening processes and actions to address these.<sup>21</sup> Council has advanced its comprehensive Standard LEP in stages, beginning with environmental studies for the Waterways zones and thence its Rural and Environmental Protection zones. Following completion of the waterways study, Council progressed to a process of preparing biodiversity planning provisions, which has as its basis the mapping of bushland areas as these constitute areas of high biodiversity significance. Whether these provisions were to be expressed as Council-wide bushland overlay maps in the LEP, or alternatively just a separate policy document, would depend on the outcome of public consultation by the Council. Introduction of a biodiversity or bushland overlay in rural areas as part of the environmental protection zoning under the LEP was particularly problematic, due to opposition from affected residents:

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<sup>17</sup> Interview with Gordon Clark, Strategic Planning Manager, Shoalhaven City Council (Nowra, 13 April 2007).

<sup>18</sup> *Shoalhaven Local Environmental Plan 1985*, cl.24A – Development within the hydrological catchment comprising intensive plant growing: “The objective of this clause is to ensure that development with the potential to adversely impact on water quality in the hydrological catchment requires development consent.” (cl.24A(2)).

<sup>19</sup> Interview with Gordon Clark, Strategic Planning Manager, Shoalhaven City Council (Nowra, 13 April 2007).

<sup>20</sup> Hornsby Shire Council *Biodiversity Conservation Strategy*, (2006) [http://www.hornsby.nsw.gov.au/uploads/documents/BSC\\_web1.pdf](http://www.hornsby.nsw.gov.au/uploads/documents/BSC_web1.pdf), viewed 8 July 2010.

<sup>21</sup> Interview with Diane Campbell, Biodiversity Coordinator, Hornsby Shire Council (Hornsby, 26 March 2007).



“We ran into significant community problems associated with that, because they thought of it as taking away their development opportunities.”<sup>22</sup>

Hornsby Shire Council withstood significant pressure in 2003 from the farmers association in the Galston area for increased subdivision opportunities. In lobbying councilors, the argument advanced by local farmers was that, given the decreasing economic viability of farming and hence use of the land for rural purposes, Council should look at other opportunities for the land such as housing. Although Council’s planners did not accept the view that the land was not viable for farming, their response to councilors was that even if the viability argument was accepted, the land should not be subdivided because there are “other attributes associated with rural lands: its environmental qualities, its scenic qualities, its social qualities.”<sup>23</sup> Subsequent community consultation in Galston revealed an even split in terms of opinion on future subdivision of this locality. What finally resolved the issue against the residential development of this area was the advice of service providers regarding the prohibitive cost of infrastructure provision, particularly sewerage. The unavailability and/or prohibitive cost of infrastructure provision can thus be an effective (and possibly unforeseen) growth management tool.

#### **8.2.4 Penrith City Council**

Penrith City Council has invested considerable resources investigating its remaining rural lands with a view of identifying which areas should be protected from urban growth, and the mechanisms by which these lands might be retained.<sup>24</sup> The *Penrith Rural Lands Study* was completed for Council in 2001,<sup>25</sup> and published as a companion research document for Council’s formal expression of strategic policy, the *Penrith Rural Lands Strategy*,<sup>26</sup> which was adopted by Council in September 2003. Built on recognition of the future need for an

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<sup>22</sup> Interview with James Farrington, Manager, Town Planning Services, Planning Division, Hornsby Shire Council (Hornsby, 2 March 2007).

<sup>23</sup> Interview with James Farrington, Manager, Town Planning Services, Planning Division, Hornsby Shire Council (Hornsby, 2 March 2007).

<sup>24</sup> Interview with Ruth Goldsmith, Local Planning Manager, Penrith City Council (Penrith, 4 April 2007).

<sup>25</sup> Penrith City Council and EDGE Land Planning, *Penrith Rural Lands Study*, (Penrith, Penrith City Council, June 2001), <http://www.penrithcity.nsw.gov.au/index.asp?id=361>, viewed 14 February 2011.

<sup>26</sup> Penrith City Council, *Penrith Rural Lands Strategy*, (Penrith: Penrith City Council, September 2003), [http://www.penrithcity.nsw.gov.au/uploadedFiles/Website/Your\\_Council/Publications/Rural\\_Land\\_Study/ruralandsstrategy.pdf](http://www.penrithcity.nsw.gov.au/uploadedFiles/Website/Your_Council/Publications/Rural_Land_Study/ruralandsstrategy.pdf), viewed 14 February 2011.



urban growth boundary in Penrith,<sup>27</sup> the *Penrith Rural Lands Study* had diverse, ambitious aims in relation to managing the remaining rural lands in the LGA. These aims included reinforcing Penrith's urban growth limits and promoting "a compact City by identifying and promoting the intrinsic rural values and functions of the City's rural lands"; sustaining "healthy and diverse rural lands in Penrith, by conserving their biodiversity, maintaining the integrity of their ecosystems, [and] maintaining their natural capital"; and increasing "the awareness of ecologically sustainable rural land use practices amongst landholders, land-owners, land-users and the community generally, and promote responsible stewardship of Penrith's Rural Lands."<sup>28</sup>

Findings of the *Penrith Rural Lands Study* were utilised for the formulation of the *Penrith Rural Lands Strategy* in 2003 (subsequently amended in 2005). Integral to the Strategy was the identification of land use designations with accompanying minimum allotment sizes to be incorporated as land use zoning and development standards in Council's local environmental plan (at the time of writing being prepared as part of Council's new comprehensive Standard LEP). Map 8.2 indicates the significant tracts of rural lands remaining in the north and south of the Penrith LGA, and the land use designations and minimum lot sizes proposed to help ensure its conservation.

Challenging Council's policy efforts for the retention of rural lands has been a lack of real recognition of rural lands in the Metropolitan Strategy, and the perception among many rural land owners that such land is merely "urban land in waiting", manifested in a lack of commitment argued "along the lines of 'we've bought these lands as an investment and we have the right to develop them' approach."<sup>29</sup> In response, Council has undertaken significant analysis of rural landscape values and the economic benefit of viable agricultural activities. Precedent for the successful protection of rural landscape values in localities in Penrith exists in the form of statutory land use and zoning controls implemented through *Sydney Regional Environmental Plan No.13 – Mulgoa Valley*. This success was not reproduced however, in a similar conservation-oriented REP in Penrith, the *Sydney Regional Environmental Plan No.25 – Orchard Hills*, due a lack of understanding and commitment by State and local

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<sup>27</sup> Interview with Penrith Officer 1, Penrith City Council (Penrith, 4 April 2007).

<sup>28</sup> Penrith City Council and EDGE Land Planning, above n 25, p 2.

<sup>29</sup> Interview with Ruth Goldsmith, Local Planning Manager, Penrith City Council (Penrith, 4 April 2007).



government, and greater community involvement in Mulgoa Valley.<sup>30</sup> Notwithstanding these mixed results, reliance on zoning and land use controls within REPs was recognized as one way to protect non-urban lands in the *Penrith Rural Lands Study*.<sup>31</sup>

Release of the Metropolitan Strategy has been connected to a reactivation of the ‘property rights’ issue in some rural areas in Penrith. Debate over landowner expectations of new rural land releases was conducted as part of community consultations within the *Penrith Rural Lands Strategy*. Unfortunately however, the announcement of the North West Growth Centre and related green zones (i.e. the Lifestyle and Rural Living Zone) in and around the Growth Centres as part of the Metropolitan Strategy had profound implications on rural land in the northern part of the LGA. Confusion among landowners was created by the identification, without any consultation with Council, of this large green zone across extensive areas of the council area within only a short time span after the release – and apparent finalization – of future rural and urban lands by the *Penrith Rural Lands Strategy*.<sup>32</sup> Announcement of the green zone both fueled landowner opposition to the green zone – “they were objecting to the limitations of that zone over their property” – and created expectations that their land would be similarly urbanised as was land on the other side of the green zone boundary.<sup>33</sup> A level of landowner ‘protest’ that had been effectively contained by the Council, quickly became out of control in the North West Growth Centre and the northern part of the LGA,<sup>34</sup> with a lobby group formed for example to pressure the State Government to have their land included in the Growth Centre.<sup>35</sup> Penrith Council officers were, as a consequence, of the firm opinion that a definitive urban growth boundary needed to be declared as part of the Sydney Metropolitan Strategy.<sup>36</sup>

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<sup>30</sup> Interview with Ruth Goldsmith, Local Planning Manager, Penrith City Council (Penrith, 4 April 2007).

<sup>31</sup> Penrith City Council and EDGE Land Planning, above n 25, p 2.

<sup>32</sup> Interview with Ruth Goldsmith, Local Planning Manager, Penrith City Council (Penrith, 4 April 2007).

<sup>33</sup> Interview with Ruth Goldsmith, Local Planning Manager, Penrith City Council (Penrith, 4 April 2007).

<sup>34</sup> Interview with Ruth Goldsmith, Local Planning Manager, Penrith City Council (Penrith, 4 April 2007).

<sup>35</sup> Interview with Penrith Officer 1, Penrith City Council (Penrith, 4 April 2007).

<sup>36</sup> Interview with Ruth Goldsmith, Local Planning Manager, Penrith City Council (Penrith, 4 April 2007); Interview with Penrith Officer 1, Penrith City Council (Penrith, 4 April 2007).

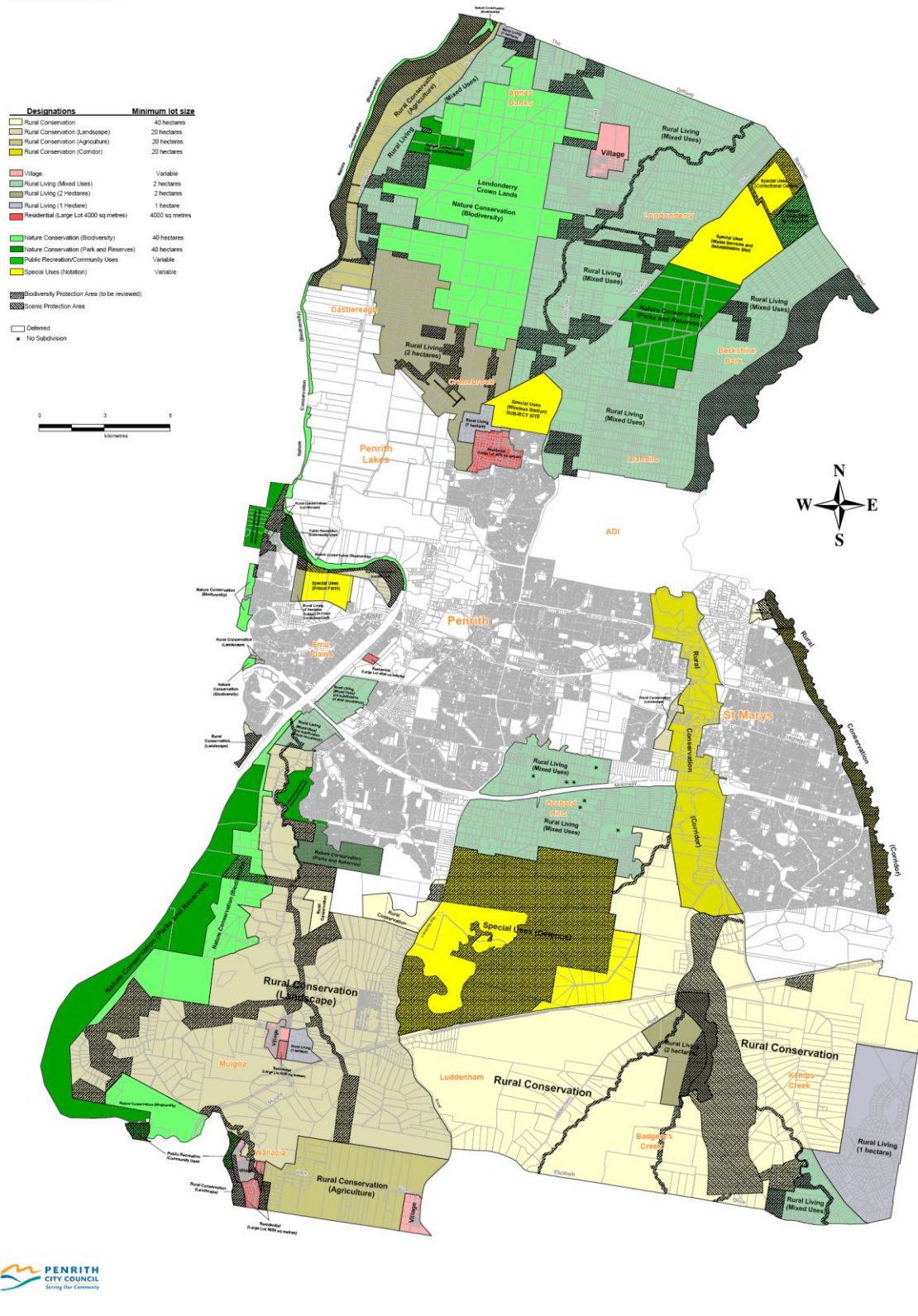


## Map 8.2: Land Use Designations, Penrith Rural Lands Strategy

### PENRITH RURAL LANDS STRATEGY

#### Land Use Designations

Adopted by Penrith City Council 29th September 2003  
Amended 4th July 2005



Source: *Penrith Rural Lands Strategy*, 2003 (amended 2005)



Similar to other fringe councils such as Wingecarribee, Hornsby and Shoalhaven, Penrith Council is also investigating the use of natural resource mapping overlays in its Standard LEP to incorporate local context such as biodiversity and scenic quality, which will also be reflected in development controls within its LEP.<sup>37</sup> Penrith Council has been interested in pursuing biodiversity certification of its LEP, but has encountered difficulties of obtaining the level of detailed data required to obtain certification,<sup>38</sup> and particularly the cost involved, as biodiversity certification would require Council to undertake detailed surveys on private property.<sup>39</sup> Given this impediment, Council has taken the view that as environmental studies are required from landowners seeking spot rezonings, Council should rely on this data as it becomes available, rather than impose upon itself the burden of undertaking a comprehensive assessment of all lands in within its boundaries.<sup>40</sup> This approach of a more reactive site-by-site ecological assessment as part of the development control process, rather than a more strategic planning perspective, appears to be consistent with 2010 amendment to biodiversity certification discussed in Chapter 6, which now permits the certification of lands instead of environmental planning instruments. Nonetheless, the importance of having a strategic framework in place was recognized by Council, in order to identify land that needed to be preserved through whatever mechanisms might be available – acquisition, land swap, biodiversity certification or biobanking.<sup>41</sup> To this end Council pursued the finalization of its biodiversity strategy, which has since been released. Given the constraints described above however, this document is unavoidably broad at present, although it does tabulate vegetation communities in the Penrith LGA.<sup>42</sup>

## **8.2.5 Camden Council**

Camden Council, the recipient of the vast bulk of urban expansion designated for the South West Growth Centre, demonstrated considerable prescience following its decision to devise a comprehensive strategic planning framework to direct growth and protect key environmental attributes, prior to the identification of the Growth Centres in 2005. In 1999, Council adopted

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<sup>37</sup> Interview with Penrith Officer 2, Penrith City Council (Penrith, 4 April 2007).

<sup>38</sup> Interview with Penrith Officer 2, Penrith City Council (Penrith, 4 April 2007).

<sup>39</sup> Interview with Ruth Goldsmith, Local Planning Manager, Penrith City Council (Penrith, 4 April 2007).

<sup>40</sup> Interview with Penrith Officer 3, Penrith City Council (Penrith, 4 April 2007).

<sup>41</sup> Interview with Ruth Goldsmith, Local Planning Manager, Penrith City Council (Penrith, 4 April 2007).

<sup>42</sup> Penrith City Council, *Penrith Biodiversity Strategy*, adopted May 2004, (Penrith, Penrith City Council, 2004), [http://www.penrithcity.nsw.gov.au/uploadedFiles/Website/Environment/BiodiversityStrategy2004\(1\).pdf](http://www.penrithcity.nsw.gov.au/uploadedFiles/Website/Environment/BiodiversityStrategy2004(1).pdf), viewed 26 February 2011,



*Camden 2025*,<sup>43</sup> a strategic plan setting out the vision, issues, objectives and actions to enable it to guide development in the years between 1999 and 2025. The Strategic Plan identified five major policy priority areas deemed important to Camden's balanced future growth. These areas of policy focus were: managing urban growth; accessibility; environmental systems; economic and community development; and governance. This Strategic Plan provides a framework for Council's management plans including subsequent strategic policies and statutory plans. Other significant environmental protection and natural resource conservation policies devised by Camden Council include its *Natural Assets Policy*<sup>44</sup> and its riparian policy titled *Camden Riparian Areas Plan of Management*.<sup>45</sup>

Prior to the adoption of *Camden 2025*, Camden Council sought to protect both riparian corridors (for their water quality and biodiversity significance) and non-riparian areas of biodiversity and/or scenic value, through either environmental protection or scenic protection zoning in LEPs produced for new urban release areas. With the advent of *Camden 2025*, a more holistic and considered acknowledgment of green spaces, riparian corridors, remnant vegetation, and the scenic and biodiversity values of ridgelines could be incorporated into future planning documents.<sup>46</sup>

Amongst the area strategies and actions identified in *Camden 2025* to improve environmental systems were those relating to water quality, biological diversity, and landscape. Water quality strategies and actions included the development and implementation of a holistic plan for rivers and creeks in cooperation with the (then) Hawkesbury-Nepean Catchment Management Trust, minimization of the environmental impacts of salinity (a major problem in Camden),<sup>47</sup> and the protection and enhancement of the riparian zone through the preparation and implementation of a riparian lands policy. This latter strategy was progressed with the subsequent production of the *Camden Riparian Areas Plan of Management* in 2002, discussed further below. Biological diversity strategies and actions

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<sup>43</sup> Camden Council, *Camden 2025 – A Strategic Plan for Camden*, (Camden, Camden Council, 1999), <http://www.camden.nsw.gov.au/files/managementplan/Camden%202025.pdf>, viewed 28 March 2010.

<sup>44</sup> Camden Council, *Natural Assets Policy*, (Camden, Camden Council, 2003), [http://www.camden.nsw.gov.au/files/environment/natural\\_assets\\_policy.pdf](http://www.camden.nsw.gov.au/files/environment/natural_assets_policy.pdf), viewed 28 March 2010.

<sup>45</sup> Camden Council, *Camden Riparian Areas Plan of Management*, (Camden, Camden Council, 2002), [http://www.camden.nsw.gov.au/page/camden\\_riparian\\_areas.html](http://www.camden.nsw.gov.au/page/camden_riparian_areas.html), viewed 28 March 2008.

<sup>46</sup> Interview with Sue Morris, Director, Development and Environment, Camden Council (Camden, 23 May 2007).

<sup>47</sup> Interview with Sue Morris, Director, Development and Environment, Camden Council (Camden, 23 May 2007).



included the development and implementation of a Natural Corridors Plan which in part required identification of the nature and extent of significant biological resources, identification of vegetation and wildlife corridor opportunities, completion of a Vegetation Management Plan and the development of planning mechanisms to protect endangered species, habitat and ecosystems. Cooperation with the relevant catchment management body, in the form of the Hawkesbury-Nepean CMT, in the formulation of *Camden 2025* represents a significant recognition on the part of the Council of the benefits of policy integration and coordination.

Landscape strategies and actions identified in *Camden 2025* relate, first to the conservation of important cultural and scenic landscapes that characterise the Camden area, and second to ensuring that development control is consistent with landscape preservation objectives. Measures to conserve important cultural and scenic landscapes include the retention of agriculture which contributes positively to landscape images and is environmentally sustainable, and the provision of incentives for the good management of these landscapes.<sup>48</sup> Unfortunately, the document does not elaborate what form these incentives would take. Nonetheless, *Camden 2025* represents a much more holistic approach, as it looks at existing use management as well as development control.

As part of the implementation of *Camden 2025*, Council developed the *Camden Riparian Areas Plan of Management* in 2002. This Plan of Management, prepared in accordance with the provisions of the *Local Government Act 1993*,<sup>49</sup> applies to those limited areas of land categorized as wetlands and watercourses in open space areas under Council's care and control. Need for the Plan arose from recognition that major fragmentation of the larger riparian corridors (for example Nepean River and Narellan Creek) and the almost total loss of remnant vegetation around many of the smaller order streams, had occurred as a result of past rural and urban development processes which had seen the drainage systems of the LGA cleared in accordance with prevailing accepted practices. With such pressures impacting heavily upon the biological diversity of the riparian zone, Council moved to address this "situation with a far more ecologically aware design and management approach to its riparian corridors."<sup>50</sup>

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<sup>48</sup> Camden Council, above n 43, p 16.

<sup>49</sup> *Local Government Act 1993*, s.36.

<sup>50</sup> Camden Council, above n 45, p ii.



As a further initiative toward the realization of *Camden 2025*, Council developed a *Natural Assets Policy*, which it adopted in May 2003.<sup>51</sup> Natural assets are defined in the policy as “the stock of soil, freshwater, clean air and vegetation and other resources that underpins survival, health and prosperity of human communities.”<sup>52</sup> The policy seeks to “provide guidance for the development, redevelopment and subdivision of land which may impact on natural assets.”<sup>53</sup> It does not, however, cover existing uses, but applies to all “relevant and appropriate” development applications.<sup>54</sup> Two components of this policy warrant specific attention. First, Council took a comprehensive, integrated approach to local strategic planning by identifying remnant vegetation, linked this with environmental, planning and threatened species legislation,<sup>55</sup> and other natural assets, and then categorized bushland remnants and identified how these might be linked into native vegetation corridors.<sup>56</sup> Second, the policy introduced an offsetting mechanism for land in Camden. This mechanism predates the biobanking scheme introduced by the NSW Government and operates in areas in Camden outside the South West Growth Centre. Camden Council’s offsetting scheme is discussed in further detail below (see Section 8.4).

The *Natural Assets Policy* is described as applying to all land in the Camden LGA particularly ecologically sensitive and environmentally sensitive land.”<sup>57</sup> Ecologically sensitive land is defined by the policy as “land that supports an endangered ecological community.”<sup>58</sup> Environmentally sensitive areas “include the river, riparian land, escarpments and other scenic areas, wetlands, other significant floral and faunal habitats and corridors, and

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<sup>51</sup> Camden Council, above n 44.

<sup>52</sup> *Natural Assets Policy*, clause 1.4, Camden Council, above n 44.

<sup>53</sup> *Natural Assets Policy*, clause 1.3, Camden Council, above n 44.

<sup>54</sup> Camden Council, *Natural Assets Policy*, adopted 12 May 2003, clause 2 – Principles, p.3, available at: [http://www.camden.nsw.gov.au/files/environment/natural\\_assets\\_policy.pdf](http://www.camden.nsw.gov.au/files/environment/natural_assets_policy.pdf), viewed 28 March 2010.

<sup>55</sup> Clause 1.3 of the *Natural Assets Policy* stipulates that the purpose of the policy is to:

“Integrate the regulatory requirements of state natural resource management legislation and policies including:

- Environmental Planning and Assessment Act
- Fisheries Management Act – Habitat Protection Plan No.3 – The Hawkesbury Nepean River System
- Threatened Species Conservation Act 1995
- Planning for Bushfire Protection (Planning NSW & NSWRFs)
- Sydney Regional Environmental Plan No.20 – Hawkesbury-Nepean River 1987
- Rivers and Foreshores Improvement Act

<sup>56</sup> Interview with Sue Morris, Director, Development and Environment, Camden Council (Camden, 23 May 2007).

<sup>57</sup> Camden Council, 2003 *Natural Assets Policy*, above n 42, clause 3 – Land to which the policy applies, p.4.

<sup>58</sup> Here, ‘ecological community’ has the same meaning as in the *Threatened Species Conservation Act 1995* or Part 7A of the *Fisheries Management Act 1994*.



known and potential acid sulphate soils.”<sup>59</sup> Ecologically sensitive land is categorized under the policy as: critically endangered; core habitat – regional; core habitat – local; support for core; and other native vegetation. These categories reflect a hierarchy in respect to biodiversity conservation, and different requirements under the *Natural Assets Policy* (for example with the application of offsetting) are imposed on each category. In relation to environmentally sensitive areas, land is divided into primary corridors and riparian land, with specific requirements under the policy applying to each of these categories.

Camden Council’s *Natural Assets Policy* is based on several broad aims and objectives, which relate to the facilitation of ESD; consideration of the cumulative and total catchment management impacts of development; protection and restoration of native vegetation; maintenance of natural hydrological processes; and provision of an offsetting mechanism.<sup>60</sup> Three key principles are identified in the policy which must be considered by the Council when assessing whether or not development proposals should be approved. These are a ‘no net loss’ policy, the precautionary principle and cumulative impact. No net loss means, in the context of the policy, “no overall loss in the total extent, quality, ecological integrity and security of the biodiversity values of the Camden local government area.”<sup>61</sup> This policy position recognizes that the natural assets of Camden “have been significantly compromised and halting the decline of natural values is a priority.”<sup>62</sup> Significant offsets – the “ameliorative action following the degradation of natural assets that occur as a result of development”<sup>63</sup> – constitute an integral part of this no net loss policy, and is discussed further below.

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<sup>59</sup> *Natural Assets Policy*, Section 7 – Definitions, Camden Council, 2003.

<sup>60</sup> Clause 1.4 of the *Natural Assets Policy* states that its principal objectives are to:

- “Facilitate ecologically sustainable development through the substantial retention and long term management of natural assets in Camden;
- Protect the environment of the Camden local government area by ensuring that the impacts of future land uses are considered in a cumulative and total catchment management context;
- Protect and conserve and restore native vegetation in parcels of a size, quality and configuration which will enable the existing plant and animal communities to survive in the long term;
- Maintain the natural hydrological processes of the landscape to ensure the survival of aquatic ecosystems and the mitigation of salinity risk; and
- Provide an offsetting mechanism to provide flexibility in the implementation of this policy.”

<sup>61</sup> Camden Council, above n 44, p 3.

<sup>62</sup> *Ibid*, p 3.

<sup>63</sup> *Ibid*, p 3.



## 8.3 Zoning and other statutory development controls

Considered here are traditional ‘command and control’ regulatory tools employed to implement local land use planning, as well as some more innovative uses of this approach in the context of urban growth management for Sydney. Operating under the statutory planning system as delineated by the EP&A Act, these tools include land use zoning and development standards. Evident in this discussion are attempts to integrate strategic planning in relation to various natural resources such as biodiversity, landscapes, agricultural land and water quality – described in the preceding section – with these traditional forms of land use planning. This is particularly evident with the adoption by several local councils of an LEP ‘overlay mapping’ technique, by which natural resource mapping undertaken as part of councils’ strategic planning are given statutory expression by being incorporated into their LEPs. Also discussed in this section are controls which have their statutory source outside the EP&A Act. These mainly consist of controls in relation to land subdivision such as restrictions on title under the *Conveyancing Act 1919* and provision of large protected residue allotments in new residential subdivisions using provisions under the *Community Land Development Act 1989*.

### 8.3.1 Zoning, development standards and LEP overlay mapping

Regulatory controls continue to play an important role in the planning and management of growth at the local or municipal level in Sydney. Arguably land use planning controls such as zoning and minimum allotment/density controls remain the key tools at the disposal of local planning decision-makers, to both manage land use change, and maintain planning certainty of existing land uses. While the Metropolitan and subregional strategies are becoming more effective mechanisms for planning for growth in the Sydney region, the LEP and its constituent land use zoning still remains the key mechanism for implementing planning strategies and policies.<sup>64</sup> The coincidence of the latest strategic planning initiatives – *City of Cities*, consequent subregional strategies, and regional strategies – with local planning reform in the guise of the Standard Instrument has been very fortuitous compared to past situations, as it permits councils to prepare a new LEP within the context of an updated strategic framework.<sup>65</sup> Augmenting traditional land use zoning is a growing focus on

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<sup>64</sup> Interview with Phil Leijten, Acting Manager, Planning Reform, NSW Department of Planning (Sydney, 20 December 2007).

<sup>65</sup> Interview with Phil Leijten, Acting Manager, Planning Reform, NSW Department of Planning (Sydney, 20 December 2007).



development standards such as minimum allotment sizes and overlay maps, often derived from councils' earlier strategic planning investigations and studies.

Several local councils have attempted to use zoning and other traditional regulatory tools such as development standards (minimum allotment sizes, density controls, setbacks etc) in more innovative ways to achieve conservation and sustainability objectives. Hawkesbury City Council for example, primarily relies on zoning controls, along with a few other strategies relating to urban and rural/agricultural lands that are in place, to manage its growth. While at the time of writing, the primary local EPI covering the Hawkesbury LGA was the *Hawkesbury Local Environmental Plan 1989*, the Council had prepared the *Draft Hawkesbury Local Environmental Plan 2009* in accordance with the NSW Government's *Standard Instrument (Local Environmental Plans) Order 2006*. The draft plan was publically exhibited early in 2010, and in June 2011 the Council resolved to forward an updated version of the draft LEP (*Draft Hawkesbury Local Environmental Plan 2011*) to the Department of Planning for finalization and gazettal. As the 1989 LEP was relatively up to date due to a process of ongoing amendment, Council basically translated that document into the Standard LEP template.<sup>66</sup> Thus, Council has prepared a *Draft Hawkesbury Local Environmental Plan 2009 Zone Conversion Summary*,<sup>67</sup> which includes the following zone conversions (Table 8.2 refers).

Hawkesbury City Council introduced a *lot averaging* provision in relation to land subdivision as an amendment in 2005 to its 1989 LEP.<sup>68</sup> Contained in clause 11 of the Hawkesbury LEP 1989, while this innovative provision still permits the potential yield from the subdivision of environmentally constrained land to be achieved, it does this in a way that encourages smaller

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<sup>66</sup> Interview with Rachel Cumming, Senior Strategic Planner, Hawkesbury City Council (Windsor, 20 April, 2007).

<sup>67</sup> Hawkesbury City Council, *Draft Hawkesbury Local Environmental Plan 2009 Zone Conversion Summary*, (Windsor, Hawkesbury City Council, 2009), [http://www.hawkesbury.nsw.gov.au/\\_data/assets/pdf\\_file/0004/18490/Zone-Conversion-Summary.pdf](http://www.hawkesbury.nsw.gov.au/_data/assets/pdf_file/0004/18490/Zone-Conversion-Summary.pdf), viewed 6 July 2010.

<sup>68</sup> *Hawkesbury Local Environmental Plan 1989*, clause 11 (Rural subdivision – general principles); inserted as Amendment No.126, gazetted 24 March 2005. Clause 11(1) defines a lot averaging subdivision as: “**lot averaging subdivision** means a subdivision of land within the Mixed Agriculture, Rural Living or Rural Housing zones that ... will not result in an original allotment being divided into more allotments than the number resulting from:

- (a) dividing the area of the original allotment in hectares:
  - (i) by 10, if the land is in the Mixed Agricultural zone, or
  - (ii) by 4, if the land is in the Rural Living zone, or
- (b) multiplying the area of the original allotment in hectares by the density control shown on the map, if the land is in the Rural Housing zone.”



developable lots so that a larger, undeveloped, residual allotment can be retained. This mechanism thus minimises land fragmentation, which is desirable from the perspective of addressing issues such as biodiversity, effluent management and bushfire planning through asset protection zones.<sup>69</sup> The undeveloped residue lot may be used for natural resource management purposes and must be retained as neighbourhood property under the provisions of the *Community Land Development Act 1989* (i.e. retained under community title), or in certain instances as large scale agriculture.<sup>70</sup> Effectively, the mechanism is a form of cluster subdivision (see extract in Table 8.3, and refer to Appendix D for the entire provisions).

**Table 8.2: Extract from Draft Hawkesbury LEP 2009  
Zone Conversion Summary**

Current LEP		Proposed LEP	
Symbol	Hawkesbury Local Environmental Plan 1989 Zone	Symbol	Standard Instrument Zone
7A	Environmental Protection (Wetlands)	E2	Environmental Conservation
7D	Environmental Protection (Scenic)	E4	Environmental Living
7D	Environmental Protection (Scenic) at Mount Bowen	RU5	Village
7D	Environmental Protection (Scenic) at The Islands	R5	Large Lot Residential
EP-MA	Environmental Protection – Mixed Agriculture (Scenic)	E4	Environmental Living
EP-AP	Environmental Protection – Agricultural Protection (Scenic)	RU2	Rural Landscape
7E	Environmental Protection (Consolidated Land Holdings)	E3	Environmental Management
8(a)	Nature Reserve	E1	National Parks and Nature Reserves

Source: Hawkesbury City Council (2009), *Draft Hawkesbury Local Environmental Plan 2009 Zone Conversion Summary*,

The primary objective of the lot averaging subdivision control is to allow for the better long term management of endangered ecological communities and regionally significant wetlands

<sup>69</sup> Interview with Rachel Cumming, Senior Strategic Planner, Hawkesbury City Council (Windsor, 20 April, 2007).

<sup>70</sup> *Hawkesbury LEP 1989*: Clause 11(4)(d) provides that: “any endangered ecological community will be contained within and managed on neighbourhood property under the provisions of the *Community Land Development Act 1989*; Clause 11(4)(e) provides that: any endangered ecological community will be contained within and managed on neighbourhood property under the provisions of the *Community Land Development Act 1989* or an allotment designed for large scale agriculture.”



in the Rural Housing and parts of the Rural Living and Mixed Agriculture zones.<sup>71</sup> For a landowner to take advantage of the lot averaging tool, at least 20% of the land must be occupied by an endangered ecological community or a regional significant wetland.<sup>72</sup> Significantly, this control has been transferred into Draft Hawkesbury LEP 2010, where it is proposed to apply to RU1 Primary Production, RU4 Rural Small Holdings and RU5 Large Lot Residential zones.<sup>73</sup> The environmental benefit of the lot averaging tool is that while less subdivision does not necessarily occur, a different, less destructive, outcome is achieved: as a consequence this initiative generated a deal of interest amongst local councils in NSW.<sup>74</sup>

**Table 8.3: Extract from Hawkesbury LEP 1989 – Lot Averaging Subdivision**

Column 1	Column 2	Column 3
Zone	Minimum allotment size if not lot averaging subdivision	Minimum allotment size if lot averaging subdivision
Mixed Agriculture	10 hectares	2.5 hectares
Rural Living	4 hectares	1 hectare
Rural Housing	Minimum lot size as shown on the map	1,500 square metres if the density control shown on the map is 5.0 per hectare  2,400 square metres if the density control shown on the map is 3.0 per hectare  3,750 square metres if the density control shown on the map is 2.0 per hectare

Source: *Hawkesbury Local Environmental Plan 1989*, cl.11 – Rural subdivision – general provisions.

<sup>71</sup> *Hawkesbury Local Environmental Plan 1989*, cl.11. The clause defines an *endangered ecological community* to mean “any endangered ecological community referred to in Part 3 of Schedule 1 to the Threatened Species Conservation Act 1995”; the clause defines *regionally significant wetlands* to mean “any land shown as wetland on ‘the map’ within the meaning of Sydney Regional Environmental Plan No.2 – Hawkesbury-Nepean River (No.2 – 1997).”

<sup>72</sup> *Hawkesbury Local Environmental Plan 1989*, cl.11(4)(b).

<sup>73</sup> *Draft Hawkesbury Local Environmental Plan 2009*, cl.4.1A – Minimum subdivision lot size – local requirements for rural, environment protection and large lot residential zones.

<sup>74</sup> Interview with Rachel Cumming, Senior Strategic Planner, Hawkesbury City Council (Windsor, 20 April, 2007).



The Hills Shire Council has attempted to use development incentives in the form of zone-based density bonus controls to protect significant stands of Cumberland Plain Woodland in its Balmoral Road release area.<sup>75</sup> The first strategy the Council proposed to protect this endangered ecological community was to preserve it in a parcel large enough to ensure its viability through offering density bonuses to landowners. The Hills Shire Council scheme differs slightly from that for Hawkesbury City Council in that the former guarantees a density and allotment bonus, whereas this does not occur under the latter.

As the Balmoral Road release area was characterized by fragmented ownership, Council offered density bonuses to several adjoining landowners if they combined their parcels and developed them as one large precinct, which would ensure the retention of the Cumberland Plain Woodland present on some of the allotments. A draft LEP was accordingly prepared by Council to give effect to this strategy, utilizing the zones available under its existing comprehensive LEP, the *Baulkham Hills Local Environmental Plan 2005*. Under the Baulkham Hills LEP the zone also determines the density of development. Thus the Residential 2(a1) zone, which is the highest density zone, permits the development of apartment buildings with a density of up to 175 persons per hectare. At the next zone down – the Residential 2(a2) or ‘townhouse zone’ – densities up to 95 persons per hectare were permitted. Under the draft LEP prepared for Balmoral Road, the entire precinct (including the area of Cumberland Plain Woodland) was to be rezoned 2(a1) and adjoining landowners were to share in these higher densities if they developed their land as a single precinct which retained the Cumberland Plain Woodland. An added bonus of this proposal from Council’s perspective was that the Woodland would not be zoned Open Space, and so would not be dedicated to or acquired by the Council, but remain under private ownership as private or communal open space through a community title subdivision, thereby relieving Council of the financial obligation of compulsory acquisition and recurrent maintenance expenditure.<sup>76</sup>

Unfortunately this proposal was rejected by the Parliamentary Counsel’s Office, which advised that an LEP could not legally require that allotments in separate ownership be developed together – rather, this could only be provided through a development control plan (DCP) or master plan. Council had no choice but to simply state as a DCP requirement that

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<sup>75</sup> Interview with Rebecca Johnston, Project Manager Forward Planning, The Hills Shire Council (Baulkham Hills, 5 March 2007).

<sup>76</sup> Interview with Rebecca Johnston, Project Manager Forward Planning, The Hills Shire Council (Baulkham Hills, 5 March 2007).



adjoining parcels be developed together as one parcel under a master plan.<sup>77</sup> This outcome was less than satisfactory as DCPs and master plans are only policy documents and not legally enforceable instruments.<sup>78</sup> Thus this approach did not give the force of law to require the neighbouring landowners work together to ensure that the precinct was developed as one parcel and large-lot residual vegetated areas subsequently protected.<sup>79</sup>

Further evidence of the problematic application of zoning controls without counterbalancing incentives for landowners relates to the future of remaining rural land in The Hills Shire. Significant pressure is being exerted by landowners for further subdivision of this land – for two-hectare and ten-hectare minimum allotment size land to be reduced to one-hectare and two-hectare minimum respectively. If approved, this would effectively double the rural population in an area that is characterized by some of the most significant untouched bushland and cleanest creeks in Sydney.<sup>80</sup> In the face of this push for further development on the one hand, and the need to preserve a significant part of the remaining bushland of Sydney on the other, Council is confronted with the difficulty of finding and implementing appropriate mechanisms which allow it to meet both these potentially conflicting objectives. Much of the land in question is zoned Rural, which permits agriculture – but which is predominantly uncleared bushland in private ownership. While the opportunity exists to rezone this land under the Standard LEP and put in place Environmental Protection zones, this course of action faces a major obstacle in terms of changing landowners' perception from seeing agriculture zoning as containing some kind of development entitlement, to one of valuing land in its present state for its biological integrity. A further question to be addressed is whether landowners should be rewarded for protecting their land.

Ultimately, there is a lack of State Government support for policy and statutory initiatives operating at the local level (such as voluntary planning agreements, TDRs and offsets) which promote the protection of bushland as a scenic, economic and natural biological resource.

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<sup>77</sup> *Baulkham Hills Development Control Plan: Balmoral Road Release Area*; Adopted December 2008; <http://www.thehills.nsw.gov.au/IgnitionSuite/uploads/docs/PES17%20Balmoral%20Road%20Release%20Area.pdf>, viewed 12 July 2010.

<sup>78</sup> Failure to comply with a development control plan does not constitute a breach of the *Environmental Planning and Assessment Act 1979* – see s.122. See also Farrier, D. and Stein, P. (eds.) *The Environmental Law Handbook*, 4<sup>th</sup> edn. (Redfern, Redfern Legal Centre Publishing, 2006), p 74.

<sup>79</sup> Interview with Rebecca Johnston, Project Manager Forward Planning, The Hills Shire Council (Baulkham Hills, 5 March 2007).

<sup>80</sup> Interview with Rebecca Johnston, Project Manager Forward Planning, The Hills Shire Council (Baulkham Hills, 5 March 2007).



Further, local government encounters great difficulty when it tries to implement such initiatives on its own. In a situation not unlike the aborted green zone in the Growth Centres, efforts by The Hills Council to achieve this protection through its Rural Lands Draft LEP, which would see a considerable proportion of its rural land Environmental Protection Zone, was abandoned following massive community outcry against having this zone placed on landowners' property.<sup>81</sup> As part of this draft LEP, urban-rural cluster development was also proposed. Specifically, once a minimum lot size was achieved, dwelling entitlements would accrue (a 20-hectare minimum allotment size permitting five dwellings), so that asset protection zones and open space could be shared. However, this proposal too met opposition on the basis that it would involve community title subdivision and landowner preference was for Torrens Title subdivision.<sup>82</sup>

Shoalhaven City Council's main planning document to manage urban growth is its LEP, the *Shoalhaven Local Environmental Plan 1985*,<sup>83</sup> which has been the subject of a number of major amendments. These have arisen from the need for the Council to more clearly define its urban growth boundaries through a series of strategic planning studies – including the Nowra-Bomaderry Structure Plan, the Jervis Bay Settlement Strategy, the Milton-Ulladulla Structure Plan and the Rural Plan – which translated into new LEPs for some of these settlements and amendments to the comprehensive LEP resulting in zoning changes. One of the amendments made to the Shoalhaven LEP was instigated by the Rural LEP,<sup>84</sup> which inserted a more detailed, layered framework of environmental protection and rural zones than had existed previously. The Rural LEP also removed the Rural 1(d) zone. This was effectively a future urban zone, which was highly problematic as it created an expectation that land would automatically be rezoned for urban purposes.<sup>85</sup> As a consequence of this change, Council has strengthened its zoning-based control of land use particularly in rural areas through its LEP. However, as examples described above such as the Growth Centres and The Hills Shire Council indicate, maintaining land in a rural or agriculture zone does not

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<sup>81</sup> Interview with Rebecca Johnston, Project Manager Forward Planning, The Hills Shire Council (Baulkham Hills, 5 March 2007).

<sup>82</sup> Interview with Rebecca Johnston, Project Manager Forward Planning, The Hills Shire Council (Baulkham Hills, 5 March 2007).

<sup>83</sup> *Shoalhaven Local Environmental Plan 1985*, Gazetted 17 May 1985, <http://www.shoalhaven.nsw.gov.au/council/pubdocs/PlanningDocs/LEP1985.pdf>, viewed 12 July 2010.

<sup>84</sup> *Shoalhaven Local Environmental Plan 1985 (Amendment No.127)*, Gazetted 16 July 1999.

<sup>85</sup> Interview with Gordon Clark, Strategic Planning Manager, Shoalhaven City Council (Nowra, 13 April 2007).



necessarily overcome the expectation that such land will be urbanized – there is an expectation of urbanization even without the designation of future urban investigation zones.

One peri-urban council which has finalized a new Standard LEP is Wingecarribee Shire Council.<sup>86</sup> Through the strategic planning process encapsulated in the *Wingecarribee Our Future Strategic Plan 2002*, the Council identified rural areas outside its towns and villages as either ‘Natural Bushland Ecological Setting’ or ‘Rural Ecological Setting’. Together with the distribution of the various classes of agricultural land in the LGA, this ‘ecological setting’ framework forms the basis of the allocation of rural land into the relevant zones and the establishment of zone based planning controls (reflected, for example, through natural resources sensitivity mapping) under the Wingecarribee LEP 2010. Lands that are ecologically significant in terms of landscape and agriculture, naturally vegetated areas of high biodiversity value, and lands that are water catchment areas or close to the designated water catchment areas have been placed into environmental protection zones (i.e. zones E1 – E4) under the newly gazetted Wingecarribee LEP 2010 (refer Appendix E for details on these zones).

Zone E3 Environmental Management forms the largest of these environmental protection zones in Wingecarribee Shire. Significantly however, Council describes the E3 zone as one of its three ‘rural zonings’ (rather than purely environmental protection),<sup>87</sup> and is subject to its *Rural Lands Development Control Plan*.<sup>88</sup> The Rural Lands DCP describes the primary purpose of E3 Environmental Management zoned land as being “to protect, manage and restore areas of the Shire with special ecological, scientific or aesthetic values. Development is permitted, provided it does not have an adverse effect on those values.”<sup>89</sup> The remaining rural areas have mainly been zoned RU1 Primary Production and RU2 Rural Landscape. The extent of the rural (i.e. E3, RU1 and RU2) zones in Wingecarribee Shire are evident in *Map 8.3: Location of rural land zones under Wingecarribee LEP 2010*.

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<sup>86</sup> *Wingecarribee Local Environmental Plan 2010*; published NSW Legislation website 16 June 2010.

<sup>87</sup> Wingecarribee Shire Council, *Rural Lands Development Control Plan*, adopted 11 August 2010, p.12, <http://www.wsc.nsw.gov.au/planning/12865/14003.html>, viewed: 19 March 2011.

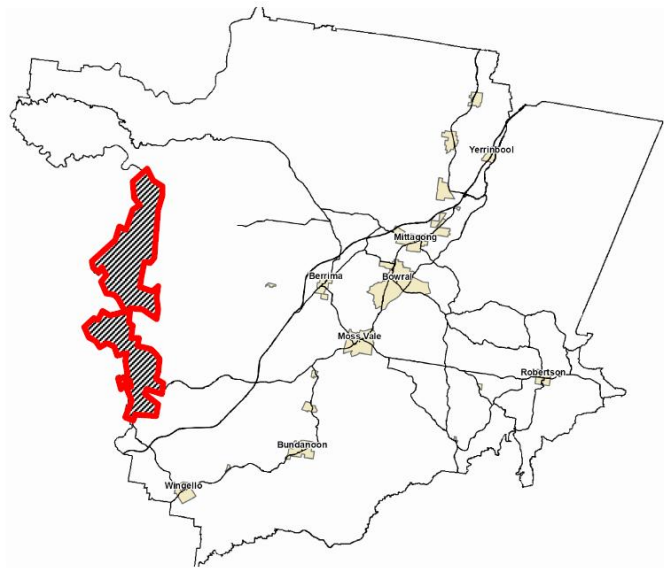
<sup>88</sup> Wingecarribee Shire Council, *Rural Lands Development Control Plan*, adopted 11 August 2010, available at: <http://www.wsc.nsw.gov.au/planning/12865/14003.html>, viewed 19 March 2011.

<sup>89</sup> Wingecarribee Shire Council, *Rural Lands Development Control Plan*, adopted 11 August 2010, p.14, available at: <http://www.wsc.nsw.gov.au/planning/12865/14003.html>, viewed 19 March 2011.

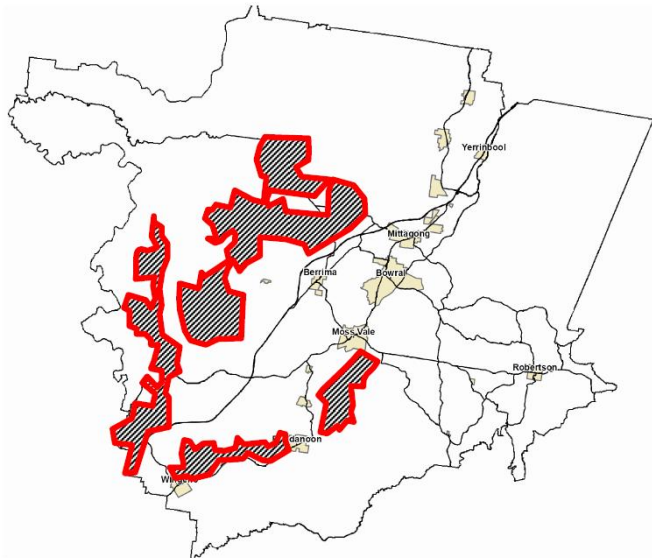


## Map 8.3: Location of rural land zones under Wingecarribee LEP 2010

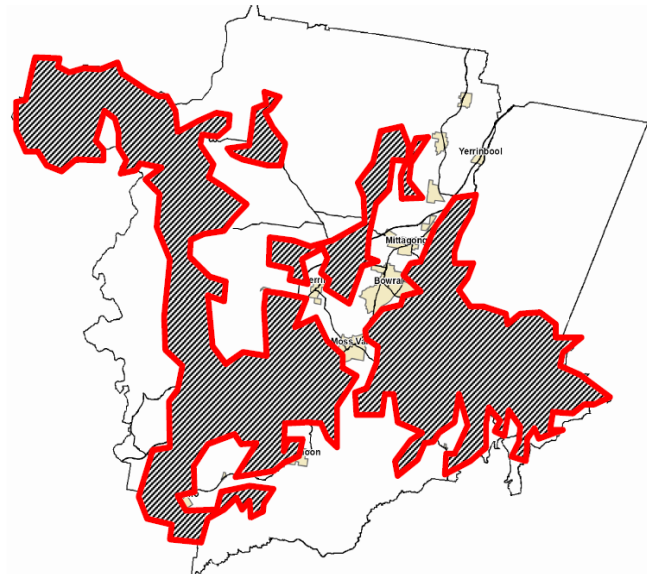
Map 11.3.1: General distribution of RU1 (Primary Production) land



Map 11.3.2: General distribution of RU2 (Rural Landscape) land



Map 11.3.3: General distribution of E3 (Environmental Management) land



Source: Extracted from *Wingecarribee Rural Lands Development Control Plan*



Fortunately, Wingecarribee Shire Council did not experience problems with potential compensation claims with the allocation of land in the environmental protection zones under the 2010 LEP, as it involved little ‘back-zoning’ of land.<sup>90</sup> The reason for this was that much of the land was designated for environmental conservation purposes under the previous *Wingecarribee Local Environmental Plan 1989* – either as Zone 7(b) Environmental Protection (Landscape Conservation) or Zone 5(c) Special Uses “C” (Water Catchment). As there is no water catchment zone under the Standard LEP, Council rezoned 5(c) land under public ownership E2 Environmental Conservation and land in private ownership as E3 Environmental Management.<sup>91</sup>

Under the E3 Environmental Management Zone, uses such as broad acre agriculture and extensive grazing are still permissible without consent, but there are limits on the types of intensive agricultural activities in that area, due to its potential impacts on the visual landscape amenity of the area, water quality in the catchments or biodiversity.<sup>92</sup> Whilst dwelling houses are permissible with consent in the zone, these are subject to a 40 ha minimum lot size which applies across this and the RU1 and RU2 zones.<sup>93</sup> The maintenance of this minimum is deemed “essential in order to protect its ecological value, retain the agricultural value of the land and retain the visual amenity of the Shire’s rural landscape.”<sup>94</sup>

Significantly, Wingecarribee Shire Council was also able to incorporate within its new LEP additional regulatory controls and environmental ‘overlay maps’ (in the form of a ‘Natural Resources Sensitivity Map’) in relation to identified biodiversity and riparian areas. Situated under ‘Part 7 – Additional local provisions’ of the LEP, these controls comprise clause 7.4:

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<sup>90</sup> ‘Back-zoning’ is a term used to describe the conferral of a new zoning classification which reduces the range of permissible development options, and hence economic value of land to its owners, compared with the land’s previous zoning classification.

<sup>91</sup> Interview with Mark Pepping, Manager, Strategic Planning, Wingecarribee Shire Council (Moss Vale, 17 August 2007).

<sup>92</sup> Interview with Mark Pepping, Manager, Strategic Planning, Wingecarribee Shire Council (Moss Vale, 17 August 2007).

<sup>93</sup> *Wingecarribee Local Environmental Plan 2010*, cl.4.2A – Erection of dwelling houses on land in certain rural and environmental protection zones – which refers to Council’s Lot Size Map. The Lot Size Map accompanying the WLEP 2010 applies a minimum lot size of 40 hectares to all land within the Shire to which the Rural Lands DCP applies – see cl.A2.7 – Subdivision of Rural Land, *Rural Lands Development Control Plan*, adopted 11 August 2010, p.17, <http://www.wsc.nsw.gov.au/planning/12865/14003.html>, viewed 19 March 2011.

<sup>94</sup> Wingecarribee Shire Council, *Rural Lands Development Control Plan*, adopted 11 August 2010, p.17, <http://www.wsc.nsw.gov.au/planning/12865/14003.html>, viewed 19 March 2011.



Natural resources sensitivity – biodiversity, and clause 7.5: Natural resources sensitivity – water (*Table 8.4: Extract from the Wingecarribee Local Environmental Plan 2010* refers). The provisions impose restrictions in the form of additional matters for consideration by a consent authority in determining whether to grant consent to development on land identified as within the ‘Regional Wildlife Corridor’ or land identified as ‘Riparian Land’ or ‘Natural Waterbodies’ in terms of Category 1, 2 and 3 streams.<sup>95</sup> Identification of the Regional Wildlife Habitat Corridor, Riparian Land and Natural Waterbodies is by means of the Natural Resources Sensitivity Map which shows cadastre – and thus individual properties affected by these controls.

Likewise, Hawkesbury City Council has sought to incorporate environmental overlay maps into the draft of its proposed Standard LEP.<sup>96</sup> These provisions are planned to be included under ‘Part 6 – Additional local provisions’, with controls contained in clause 6.9: Environmentally sensitive land – biodiversity, applying “to development that is identified as ‘environmentally sensitive land – biodiversity’ on the Biodiversity Protection Map or ‘environmental constraint area’ on the Environmental Constraints Map.”<sup>97</sup> Acceptance of environmental constraint/natural resource overlay maps as part of Council’s LEP will help overcome one of the concerns expressed of the Standard Instrument by several councils. Relevantly, inclusion of environmental overlay maps in LEPs is more likely following the release of advice on environment protection zones by the DoP in a practice note in April 2009.<sup>98</sup> Here, the Department stated that:

“Local environmental provisions may be applied where zone provisions need to be augmented in order to ensure that special environmental features are considered. For example, rural land that is still principally for agriculture but which contains environmentally sensitive areas may be zoned RU1 or RU2 and the environmental sensitivities managed through a local provision and associated (‘overlay’) map.

The benefits of this approach include:

- The intended conservation or management outcomes for land can be clearly articulated in the LEP.
- Areas are clearly defined and controls streamlined.”<sup>99</sup>

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<sup>95</sup> *Wingecarribee Local Environmental Plan 2010*, cl.7.5(5) Natural resources sensitivity – water.

<sup>96</sup> *Draft Hawkesbury Local Environmental Plan 2009*

<sup>97</sup> *Draft Hawkesbury Local Environmental Plan 2009*, cl.6.9(2).

<sup>98</sup> Department of Planning ‘Environment protection zones’, *LEP Practice Note PN 09-002*, (Sydney, DoP, 30 April 2009).

<sup>99</sup> *Ibid*, p 2.



**Table 8.4: Extract from the Wingecarribee Local Environmental Plan 2010**

**7.4 Natural resources sensitivity – biodiversity**

- (1) The objective of this clause is to maintain terrestrial and aquatic biodiversity, including:
  - (a) protecting native fauna and flora, and
  - (b) protecting the ecological processes necessary for their continued existence, and
  - (c) encouraging the recovery of native flora and fauna, and their habitats.
- (2) This clause applies to land identified as “Regional Wildlife Habitat Corridor” on the Natural Resources Sensitivity Map
- (3) Before granting development consent for development on land to which this clause applies, the consent authority must consider any potential adverse impact of the proposed development on the following:
  - (a) the native ecological community,
  - (b) the habitat of any threatened species, population or ecological community,
  - (c) any regionally significant species of fauna, flora or habitat
  - (d) habitat elements providing connectivity.
- (4) Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that:
  - (a) the development is designed, sited and managed to avoid any potential adverse environmental impact, or
  - (b) if that impact cannot be avoided – the development is designed, sited and will be managed to minimise that impact, or
  - (c) if that impact cannot be minimised – the development will be managed to mitigate that impact.

**7.5 Natural resources sensitivity – water**

- (1) The objective of this clause is to maintain the hydrological functions of riparian land waterways and aquifers, including:
  - (a) protecting water quality, and
  - (b) protecting natural water flows, and
  - (c) protecting stability of the bed and banks of waterways, and
  - (d) protecting groundwater systems.
- (2) This clause applies to riparian land or land identified as “Natural Waterbodies” on the Natural Resources Sensitivity Map.
- (3) Before granting development consent for development on land to which this clause applies, the consent authority must consider any potential adverse impact of the proposed development on the following:
  - (a) the natural flow regime,
  - (b) the water quality of receiving waters,
  - (c) the waterway’s natural flow paths,
  - (d) the stability of the waterway’s bed, shore and banks,
  - (e) the flow, capacity and quality of groundwater systems.
- (4) Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that:
  - (a) the development is designed, sited and managed to avoid any potential adverse environmental impact, or
  - (b) if that impact cannot be avoided – the development is designed, sited and will be managed to minimize that impact, or
  - (c) if that impact cannot be minimised – the development will be managed to mitigate that impact.



The practice note advises that a local provisions clause “for environmentally sensitive areas may include multiple natural resource or other features such as acid sulfate soils and riparian land ... and, where the sensitivity is a mappable attribute, a map would accompany the provision.”<sup>100</sup>

### **8.3.2 Other local controls on development on the urban fringe**

Community title subdivision has been used in several urban-fringe council areas in the Sydney basin as a development ‘solution’ in situations of land with high conservation, scenic or agricultural value. The Western Sydney Regional office of the Department of Planning has processed a number of rezoning applications for new greenfield residential releases where the developers have proposed community title estates with the large lot ‘residues’ consisting of biodiversity conservation land. In Camden for example, the second stage of the Harrington Park urban release area (known as Harrington Park 2 or Harrington Grove) consists of a clustered residential development on rural-zoned land, with areas of high biodiversity value conserved in three components utilizing different planning mechanisms – a large undeveloped residue lot held under community title, an area utilized as an offset, and land dedicated to council as part of a ‘normal’ developer contribution under section 94 of the EP&A Act.<sup>101</sup>

A requirement for the operation of the lot averaging tool under the Hawkesbury LEP 1989 (reproduced in the Draft Hawkesbury LEP 2009) is that any endangered ecological community on land being subdivided under this control “will be contained within and managed on neighbourhood property under the provisions of the Community Land Development Act 1989”.<sup>102</sup> Similarly, any significant wetland must also be held under community title or contained “on an allotment designed for large scale agriculture.”<sup>103</sup>

Penrith City Council has utilized easements in the form of registered restrictions on title to land under the *Conveyancing Act 1919*,<sup>104</sup> as a key planning tool to achieve conservation

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<sup>100</sup> Ibid, p.2.

<sup>101</sup> Interview with Sue Morris, Director, Development and Environment, Camden Council (Camden, 23 May 2007).

<sup>102</sup> *Hawkesbury Local Environmental Plan 1989*, cl.11(4)(d).

<sup>103</sup> *Hawkesbury Local Environmental Plan 1989*, cl.11(4)(e).

<sup>104</sup> *Conveyancing Act 1919* (NSW), s88B



protection goals.<sup>105</sup> Imposed as a condition of granting development consent for subdivision of land, Council has required developers to execute an easement or instrument under s 88B of the *Conveyancing Act*, restricting where development – subdivision, land clearance and construction – can occur, so as to maintain native vegetation. Typically this has occurred either as conservation corridors along the rear of properties, or cluster subdivision incorporating a large residue vegetated allotment which may then be donated to DECCW as conservation land.<sup>106</sup>

## 8.4 Local incentive schemes

Considered here are attempts by local councils in peri-urban and fringe areas of Sydney to implement incentive schemes such as offsets and TDRs, for natural resource conservation and management. Camden Council in particular, has a well-developed offsetting policy, which is examined below. Other planning incentives, such as zone-based density bonuses, have been discussed above in the context of regulatory controls such as land use zoning and development standards.

### 8.4.1 Biodiversity offset schemes

An offsetting policy is a major component of Camden Council's *Natural Asset Policy*. Council perceives offsetting as "an action that ensures that there is a net environmental improvement as a result of development ... [that] may be employed in those instances where development results in an unavoidable impact to the integrity of natural assets."<sup>107</sup> The offsetting procedure is triggered by the requirement that development applications that impact upon ecologically significant land must be accompanied by an 'offsetting plan' that is consistent with the offsetting policy contained in the *Natural Assets Policy*<sup>108</sup>. The offsetting plan must outline the ameliorative measures proposed as part of the development and must cover a five-year period as a minimum (further discussed below). Council requires that, as a result of the offsetting process – that is, implementing the offsetting plan – the recipient site must become 'secure conservation land' with ongoing management.<sup>109</sup>

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<sup>105</sup> Interview with Penrith Officer 3, Penrith City Council (Penrith, 4 April 2007).

<sup>106</sup> Interview with Penrith Officer 3, Penrith City Council (Penrith, 4 April 2007).

<sup>107</sup> Camden Council, above n 44, p 25.

<sup>108</sup> Ibid, p 34.

<sup>109</sup> "The term '**Secure Conservation Land**' refers to land that is effectively and permanently managed for biodiversity conservation purposes. This may include (but is not limited to) land reserved under the National



On-going management of ‘secure conservation land’ is a requirement of the *Natural Assets Policy* if recipient sites are to perform the necessary ecological functions that offset the environmental impact of development. The Policy recognizes that this management requirement will be ongoing (perpetual) but will however reduce as the self-sustaining processes of natural systems are reinstated. The management requirements must be outlined in a plan of management attached to the conservation covenant applying to the land and is the responsibility of the landowner. The total management cost for the first five years must be funded through the offsetting procedure and should be considered in the negotiation of the agreement. Council as a party to the covenant monitors the management of offset recipient sites to ensure that the conditions of the covenant are fulfilled. After five years the cost of materials required for the management of secure conservation land is met by Council through the provision of a ‘stewardship payment’, designed to compensate landholders for the material cost incurred managing these areas for the public good and is calculated on a \$/Ha/year rate.<sup>110</sup>

Two options for offsetting the unavoidable loss of habitat are identified in Camden’s offsetting framework – ‘Protection Provision’ and ‘Restoration’ – and offsetting for the purposes of the *Natural Assets Policy* must be undertaken in accordance with the provisions of one or both of these options.<sup>111</sup> Under the Protection Provision option, offsetting may be achieved by increasing the security of other areas of high conservation value habitat. “While this option may result in a net loss of habitat, it provides a means of reducing the threats to other areas of vegetation and assists in the management of these areas.”<sup>112</sup> Offsetting using the Protection Provision option must be undertaken in accordance with a number of provisions prescribed under the *Natural Assets Policy*. For example, because the term ‘Protection Provision’ “means the creation of ‘secure conservation land’”, which requires

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Parks and Wildlife Act, the Native Vegetation Conservation Act, land transferred into public ownership (where the land is to become a public reserve managed for the principal purpose of biodiversity protection) or land in private ownership which is managed for ecological objectives under a positive covenant to the benefit of Council ... Council will determine which arrangement is applicable and in all cases council must be a party to the agreement” – Camden Council, 2003 *Natural Assets Policy*, pp. 26 and 34, [http://www.camden.nsw.gov.au/files/environment/natural\\_assets\\_policy.pdf](http://www.camden.nsw.gov.au/files/environment/natural_assets_policy.pdf), viewed 15 March 2011.

<sup>110</sup> Camden Council, above n 44, p 36.

<sup>111</sup> The term ‘protection provision’ refers to a certainty that an area of habitat will be effectively and permanently managed for conservation purposes. For the purposes of Camden Council’s *Natural Assets Policy*, ‘protection provision’ means the creation of ‘secure conservation land’ – see Camden Council, 2003 *Natural Assets Policy*, p. 28, [http://www.camden.nsw.gov.au/files/environment/natural\\_assets\\_policy.pdf](http://www.camden.nsw.gov.au/files/environment/natural_assets_policy.pdf), viewed 15 March 2011.

<sup>112</sup> Camden Council, above n 44, p 27.



“certainty that an area of habitat will be effectively and permanently managed for conservation purposes”,<sup>113</sup> the Policy prescribes, inter alia, that:

- The land receiving the protection provision cannot be in public ownership or on land that is already secure conservation land.
- The receiving habitat should be within an area identified as Core Habitat – Regional (preferably) or Core Habitat – Local.
- The receiving habitat must be restored to a high quality to be accepted as an offset; quality standards must be included in the offsetting plan.
- Proponents may provide protection over habitat on their own land or off-site. Options for off site protection may include purchasing land, protecting it through the application of a positive covenant and then re-selling (using the ‘revolving door principle as utilized by the NSW Conservation Trust) or entering into an agreement with another land owner to be protected and managed in exchange for a fee.<sup>114</sup>

Protection Provision offsetting may thus occur either on-site or off-site and the receiving habitat should preferably be within an area identified as Core Habitat – Regional or otherwise Core Habitat – Local. Conversely, “the restoration offsetting option is best suited for losses of habitat of low conservation value where on-site offsetting may be achievable.”<sup>115</sup> Off-site restoration may also be undertaken, however this should occur within cleared areas of land identified as either a primary corridor or riparian buffer.

Camden Council’s offsetting policy adopts a number of multiplier tables, which are required to ensure that impacts are adequately offset and that the objectives of the *Natural Assets Policy* are achieved. Both offsetting options require the application of the multiplier tables. Multipliers are needed for the Protection Provision offset option as this “results in a reduction in the area of bushland within the local government area.”<sup>116</sup> In terms of the Restoration offset option, multipliers are seen as essential because rarely do restored ecological communities achieve the habitat value of remnant communities and may take many years before they provide some habitat value. Consequently,

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<sup>113</sup> Ibid, p 28.

<sup>114</sup> Ibid, pp 28-29.

<sup>115</sup> Ibid, p 29.

<sup>116</sup> Ibid, p 27.



“To compensate for this time lag, inferior quality of restored habitat and bushland lost through protection provision, multiplier tables require a greater area restored than that affected by development. The greater the conservation significance of the bushland affected by the development the higher the multiplier and therefore greater the area required to be restored.”<sup>117</sup>

Camden’s *Natural Assets Policy* contains a comprehensive methodology for the calculation of offsets under its framework of land categorization, offset options and multipliers. Thus, the offsetting framework considers three options – Protection Provision, Restoration, and a mixed offsetting option. For each of these options, multipliers have been devised for each class of affected habitat and protected or receiving habitat (that is, for each of the habitat classes within the categorations as either ecologically significant land or environmentally sensitive land). The result is the production of ‘protection multiplier’ and ‘restoration multiplier’ tables, with multipliers varying between x3 and x7 in value, depending on the habitat classification of affected and protected/receiving land. In areas of high conservation value, that is Core Habitat – Regional and Core Habitat – Local, only in ‘exceptional circumstances’ will a loss or impact to habitat be accepted and development approved.<sup>118</sup> Where such high value habitat is lost, it can only be offset by land of similar habitat value normally using the protection provision option; higher multipliers apply (between x5 and x7) than for lower value land. Restoration is not normally available as an option for impacts to habitat identified as Core Habitat – Regional and Core Habitat – Local due to the relatively low quality of the restored habitat and the long time required for habitat quality to improve. In these two areas, Protection Provision is recommended by the Policy. The Restoration offsetting option requires the proponent managing the restoration of an area to meet specified performance criteria and to submit an offset bond to Council – the details of which are outlined in the Policy.<sup>119</sup>

Several other local councils have produced biodiversity offset policies independently of the State Government’s biobanking and offset scheme. Hornsby Shire Council has conducted several green offset trials in relation to specific development applications. Outcomes from these attempts have been variable, depending on the willingness of the developer to participate and whether the offsets are located in situ or ex situ. The highly fragmented nature

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<sup>117</sup> Ibid, p 27.

<sup>118</sup> Ibid, p 27.

<sup>119</sup> Ibid, p 30.



of some endangered ecological communities in Hornsby also makes successful offsetting more problematic.<sup>120</sup>

Local councils have generally been determined to ensure that biodiversity offsetting should not be used as a device to facilitate unjustifiable vegetation loss. Where the Land and Environment Court has adjudicated on offsetting as a grounds of appeal relating to specific residential developments in Sydney, it also has sought to avoid the loss of areas of high biodiversity value. For example in *Sanctuary Investments Pty Ltd & Ors v Baulkham Hills Shire Council* (2006) 153 LGERA 355, the Land and Environment Court took a “strict stance when considering offsets”, whereby Jagot J found that offset lands 12 km distant from the development site, in another local government area, and involving a different endangered ecological community, were not adequate to compensate for loss of vegetation.”<sup>121</sup> This matter involved an appeal against Baulkham Hills Council’s refusal of a development application for the subdivision and erection of detached dwellings on a 1.2 ha site that was generally covered by tall open forest which was an endangered ecological community (EEC) under the *Threatened Species Conservation Act* 1995.

#### **8.4.2 Transferable development rights**

Over the years a few peri-urban councils have tried to implement transferable development rights schemes as an urban growth management tool, but “it needs stronger policy from the State Government for it to actually work or even some help from the Federal Government.”<sup>122</sup> A TDR scheme had been considered by at least one local council in the Sydney Growth Centres – Camden Council – as a mechanism to maintain or possibly extend the conservation corridors represented by the Landscape and Rural Lifestyle Zone in the Growth Centres SEPP, prior to their abandonment by the Planning Minister in September 2006.<sup>123</sup> Additionally, in terms of devising planning controls that are consistent with its

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<sup>120</sup> Interview with Diane Campbell, Biodiversity Coordinator, Hornsby Shire Council (Hornsby, 26 March 2007),

<sup>121</sup> Environmental Defender’s Office New South Wales *Submission on the Draft Growth Centres Conservation Plan* (Sydney, EDO, 18 April 2007), p 13, <http://www.edo.org.au/edonsw/site/policy.php#2>, viewed 25 April 2011.

<sup>122</sup> Interview with Sharon Fingland, Assistant Director, Western Sydney Regional Organisation of Councils (WSROC) (Blacktown, 13 August 2007).

<sup>123</sup> Interview with Sue Morris, Director, Development and Environment, Camden Council (Camden, 23 May 2007).



identified landscape preservation objectives, *Camden 2025* advocated the investigation of the opportunities for the implementation of a transferable development rights scheme.<sup>124</sup>

Hawkesbury City Council has also investigated the feasibility of introducing a TDR scheme, believing that if a clear urban growth strategy and strong commitment to protection of agricultural land exists, then a transfer of development rights should be achievable in identified areas. Council's Strategic Planning Committee had spent some time investigating this issue, which was promoted by Council planning staff.<sup>125</sup> Reluctance on the part of DoP due to legal impediments under the EP&A Act – in that the Act did not confer a right to develop – was cited as the reason for not proceeding further with these investigations.<sup>126</sup> To placate DoP concerns that development rights per se do not exist under planning statute in NSW, Hawkesbury City Council adopted the term *planning credits* – similar in operation to a green offset. Council officers found however, that to work properly, a regional approach was required, which of necessity would require DoP participation. Nonetheless, the actual formulation of TDR provisions and drafting into an LEP was perceived to be a quite straightforward exercise.<sup>127</sup>

### 8.4.3 Financial incentives and subsidies

Hornsby Shire Council conducts several financial incentive schemes for local landowners. One such scheme is the Rural Lands Incentive Program – originally termed a biodiversity conservation incentives program – available to all rural residents with properties over five acres in size.<sup>128</sup> Included in the program are a series of workshops funded by Council covering issues such as flora and fauna, weeds, managing stormwater, fire and bushland management, and property planning. Once a landowner has prepared a property plan and it is approved by Council, Council will then fund the resultant work required under the property plan if it involves biodiversity conservation actions. On top of funding works, Council will

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<sup>124</sup> Camden Council, above n 43, pp 16-17.

<sup>125</sup> Hawkesbury City Council, 2007 Ordinary Meeting Business Paper, 27 February 2007, pp.18-19, [http://www.hawkesbury.nsw.gov.au/data/assets/pdf\\_file/0008/9395/ORD\\_FEB2\\_2007\\_BP.pdf](http://www.hawkesbury.nsw.gov.au/data/assets/pdf_file/0008/9395/ORD_FEB2_2007_BP.pdf), viewed 20 March 2011.

<sup>126</sup> Interview with Rachel Cumming, Senior Strategic Planner, Hawkesbury City Council (Windsor, 20 April, 2007).

<sup>127</sup> Interview with Rachel Cumming, Senior Strategic Planner, Hawkesbury City Council (Windsor, 20 April, 2007).

<sup>128</sup> The name of the program was changed as landowners were more receptive to a program using the term 'rural lands' in contrast to 'biodiversity conservation': interview with Diane Campbell, Biodiversity Coordinator, Hornsby Shire Council (Hornsby, 26 March 2007).



often give a separate biodiversity incentive payment as well – in recognition of “being a steward for biodiversity.”<sup>129</sup> Here, a biodiversity payment is calculated on the basis of whether the landowner has undertaken any positive biodiversity actions to improve the protection level of land, such as lodging a property plan, entering a voluntary conservation agreement, or the condition of land has improved through revegetation, weeding and so on.<sup>130</sup> Under the rural lands incentive program a landowner may, if they wish, lodge their property plan as a development application, and report on its progress every two years. Although not as popular as more informal arrangements, this formal process is nevertheless available by utilising provisions for farm management plans in the Hornsby LEP.<sup>131</sup> The amounts offered by Council are not large; normally this is of the order of several hundred dollars per annum, though some might receive up to \$1500 being a works payment plus biodiversity payment. While the individual payments are not significant, to “magnanimously hand out incentives is seen as very positive by the Council.”<sup>132</sup>

## 8.5 Conclusion

A clear conclusion from the preceding analysis is that the peri-urban local councils of Sydney examined in this thesis have unambiguously sought to incorporate the protection, conservation and management of natural resources in their planning and development control activities. Councils have been innovative in their choice of tools, utilizing a range of strategic planning, regulatory and incentive mechanisms. In particular, the evidence indicates that councils have sought to integrate these mechanisms with each other, so that a holistic

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<sup>129</sup> Interview with Diane Campbell, Biodiversity Coordinator, Hornsby Shire Council (Hornsby, 26 March 2007).

<sup>130</sup> Interview with Diane Campbell, Biodiversity Coordinator, Hornsby Shire Council (Hornsby, 26 March 2007). See also: Hornsby Shire Council, 2010 *Rural Land Incentives Program*, available at: , viewed 15 March 2011.

<sup>131</sup> Interview with Diane Campbell, Biodiversity Coordinator, Hornsby Shire Council (Hornsby, 26 March 2007). See *Hornsby Local Environmental Plan 1994*, cl.23:

“**farm management plan** means a plan of management prepared by or on behalf of a landowner for the on-going management of land used or proposed to be used for the purposes of agriculture, an animal boarding or training establishment or intensive agriculture, being a plan that:

- (a) has been approved by the Council, and
- (b) predicts all farm management practices for a 10 year period, and
- (c) Provides for a new farm management plan to be prepared and lodged with the Council at the end of the 10 year period, and
- (d) Indicates agricultural, soil, water, nutrient and vegetation management practices appropriate to the land, and
- (e) Provides for an update report on the implementation of the plan to be submitted to the Council every 2 years.”

<sup>132</sup> Interview with Diane Campbell, Biodiversity Coordinator, Hornsby Shire Council (Hornsby, 26 March 2007).



approach to natural resource conservation in the context of urban growth management may be realized. Further, local councils have sought to integrate their local strategic plans and statutory controls with the overarching state/regional equivalents where they exist. Local council efforts have, however, unavoidably been more ineffectual in instances where State Government policy leadership is lacking. Finally, several councils have been confronted by a growing property rights movement, which is challenging and undermining their strategic urban planning natural resource management endeavours.



# 9

## A WAY FORWARD: BEYOND COMMAND REGULATION?

### 9.1 Introduction

Context and theoretical and conceptual frameworks are pivotal to this thesis on natural resources and urban growth management. Firstly, the specific context is the need to manage Sydney's peri-urban growth in a more sustainable manner in terms of its natural resources such as biodiversity conservation, water quality and agricultural land protection. At first instance, the particular sustainability attributes of concern here are articulated in the broad problem statement or research question that the thesis seeks to address. Thus the thesis asks the question: *How can urban growth and development pressures on the fringe of Australian cities and towns – and in particular the Sydney region – be managed so as to assist in the conservation of natural resources and protection of the biophysical environment?*

In seeking to answer this question the thesis presents an array of policies, mechanisms and approaches that are potentially available to planning and natural resource management decision-makers. Therefore, it is necessary to position the thesis context or topic within the theoretical framework of broad regulatory theory. Clearly there is no shortage of tools for the job. However, the emphasis and starting point of this thesis – as evidenced by its title '*Beyond command regulation*' – is that an urban growth management approach which considers and utilizes a mix of appropriate tools is preferable from several perspectives. An 'appropriate' mix of urban growth management tools may be measured firstly by their effectiveness of results or



outcomes – that is achievement of natural resource conservation and environmental protection – and secondly their likelihood of implementation – which fundamentally means their acceptance or adoption by stakeholders.

The framework of regulatory theory incorporated into the thesis provides the touchstone for the task of the identification, selection and implementation of the appropriate suite of growth management tools for the peri-urban or rural-urban fringe in Australia. The theoretical framework does this through the adoption of three fundamental concepts or constructs. First, is acknowledgment of the import of the interaction between the biophysical environment and urbanization. A manifestation or consequence of this interaction is the recognition of the significance of natural resource conservation and environmental protection as an essential ingredient or objective of growth management policy, particularly in the context of protecting these values at the juncture of urbanization on the peri-urban fringe.

The second concept or construct is acknowledgment of the significant role of ‘property rights’ in land use planning and decision-making. Rather than being perceived as a serious impediment to planning – which has been, and continues to be the case at both the strategic or forward and development control levels – property and development ‘rights’ can be harnessed as a more proactive and positive planning tool. Specifically, the view or concept of rights accruing from tenure – ownership or holding of an estate or interests in land – can be employed as an urban growth management tool to implement policies and decisions that seek to achieve natural resource conservation and environmental protection objectives.

The third element of the conceptual framework derives in part from the second construct (that is, ‘working with’ property rights), but is a good deal broader. This final construct advocates the utilization of ‘non-traditional’ or more innovative approaches to urban growth management. In addition to traditional ‘command’ regulation, this recognizes the role of other approaches such as market-based mechanisms and ‘smart regulation’ (viewed either as an amalgamation of command regulation and market-based mechanisms, or conversely, as those market-based and economic instruments reliant on a regulatory framework for their implementation).



Pivotal here also is the role of integrated strategic planning and resource management as evidenced, for example, through catchment management.

## **9.2 Summary of findings and reflection**

Integral to this thesis are the various approaches available to manage the natural resource and environmental impacts of peri-urban growth. Chapter 1 suggests three broad approaches available to planners and natural resource managers – strategic planning and policy; statutory/regulatory; and market-based and economic approaches. In turn, a number of specific tools or mechanisms have been identified as existent within these broad approaches. The purpose here is not merely one of academic or conceptual categorisation, but to distinguish approaches and tools by their fundamental characteristics in an endeavour to demonstrate that there is an array of tools potentially at the disposal of decision-makers, the selection of which can be tailored to best suit the planning, natural resource and environmental circumstances at hand.

Chapter 2 introduces and links several issues or topics that are central to the thesis. Beginning with an elaboration of key terms relating to natural resources and the environment, the chapter aims to justify the focus of the thesis on natural resource conservation and environmental protection. It examines the concepts of ESD and sustainable cities with particular reference to sustainable urban growth management. Attention is directed to urban growth management in the context of the notion of the peri-urban or ex-urban fringe, with the nature of urban development in this area considered in some detail.

Analysis of the significance of the urban fringe is undertaken through an examination of its agricultural, conservation and environmental values. Interwoven with this analysis is a consideration of the problems facing the fringe. In terms of the problems of the urban fringe, three interrelated factors in particular, have been identified as contributing to the inexorable urbanisation of peri-urban areas in Australia. These are (1) the ‘impermanence syndrome’ (or alternatively the ‘superannuation’ syndrome) of agricultural land; (2) the presumption of property rights; and (3) the powerful expectation of urban development on the fringe.



Finally, in the context of the significance and problems of the fringe and an assay of some of the relevant academic literature, the chapter offers, by reference to the notion of ‘smart growth’, an overview of possible solutions for managing the fringe. Central here is the explicit assertion of the thesis that an essential growth management goal should be the permanent protection of land from urbanisation because of its natural resource attributes or values. The inadequacies of relying on a singular solution – particularly traditional ‘command’ regulation – is acknowledged, and the consequent need to utilise a suite of tools drawing on strategic planning, regulatory, and market-based and economic approaches is advocated. It is in this context that the notion of ‘smart regulation’ is also introduced, prior to its fuller enunciation in subsequent chapters.

In essence, chapter 3 is a defence and justification of planning laws, articulated specifically through the legal, political, social and philosophical foundations of the creation and regulation of property by government and its laws. Through a scrutiny of the competing theoretical underpinnings of property, law and government of Locke and Hobbes, it is argued that state action or regulation is at the heart of property, property rights and planning controls: in other words there is a fundamental social construct or connection between the three concepts. This discourse is the foundation upon which the analysis of property rights, regulatory theory, and planning regulation and its various incidents (such as injurious affection, compensation and betterment) and manifestations (such as ‘command’ regulation and ‘smart regulation’) is based. This discourse is significant because, it is the selection of alternative theoretical foundations which determines the dominant paradigm of planning regulation. Specifically, Locke’s theory of private property, government and law supports the property rights view of minimal planning regulation, whereas Hobbes’s conceptualisation is consistent with the social or communitarian nature of property and the subsequent right of government to intervene, through law, to meet society’s evolving needs including contemporary environmental challenges.

Chapter 3 covers a wide range of interlinked topics revolving around the central theoretical framework of the thesis of regulatory theory. These topics include the notions of private property and property interests or rights and the challenges these



present to planners, addressed through a consideration of planning regulation, takings or injurious affection, compensation and betterment, 'control' regulation and 'smart regulation'. The issue of whether compensation should be payable for 'mere' injurious affection (caused either by increased regulation or downzoning of land) is considered in some detail, as this is a particularly germane issue in the context of contemporary statutory land use and metropolitan planning in NSW, and was discussed more fully later in the thesis. A major aim of this chapter was to argue that efforts to regulate land use in order to manage urban growth in a manner that protects natural resources and the biophysical environment, must take the factors of land tenure, private property and its consequential 'rights' into consideration. This exposition was not undertaken from the stance of inflating or extolling property rights: indeed in terms of the two opposing perceptions of property presented, a strong case was advanced in support of the viewpoint of the social nature of property, in contrast to the alternative viewpoint expressed by proponents of the property rights movement. It is the concept of the social nature of property which is consistent with the notion of regulation of private property by government in order to fit the circumstances or needs of society. This includes the contemporary requirement for regulation of property through planning laws for purposes of environmental and natural resource conservation. However, the form that this regulation can take also needs to be cognisant of the contemporary political, economic and social context – hence the need to look 'beyond command regulation' to alternative regulatory, policy and market-based or economic approaches. A related topic which has gained some prominence in contemporary academic discourse is that of 'partial interests' in property, and its application through some of the market-based planning tools such as transfer of development rights, which attracts further attention later in the thesis.

Chapter 4 examines in some detail the three broad approaches to urban growth and natural resource management identified in Chapter 1. The conceptual basis of several strategic planning tools are considered including bioregional planning, with focus placed on its most common manifestations in Australia, namely integrated catchment management or planning, and integrated resource management. Bioregional planning should be seen as a holistic approach to manage land use and urban growth from a natural resources perspective, and land use planning needs to be linked to biophysical boundaries and hence processes.



Comment is made on the consensus by governments in Australia on the need for integrated catchment planning, addressing land use, water allocation, water quality, and biodiversity issues in a single management framework at the catchment level. The chapter highlights the importance of mechanisms to ensure biodiversity conservation on private land, the value of a bioregional approach for biodiversity and natural resource management, and the need for a mix of policy instruments. Yet strategic land-use planning for conservation of biodiversity has been weak in NSW, with the biodiversity certification scheme introduced in 2004 for example being largely inactive to date inside the Sydney Basin, with the one exception of the Sydney Growth Centres.

The regulation of land use still remains at the core of land use planning and environmental law, and so the regulatory approach within planning continues to dominate. From a conceptual perspective, regulation of land – ‘development control’ – is seen as fundamental to planning. Development control in NSW operates within the framework of what can be described as a regulatory based statutory planning system – in other words it is founded on statutory acts of Parliament and is implemented by the regulation of development through a system of development consent which relies on tools such as zoning and development standards. These regulatory tools form the cornerstone for the implementation of any growth management strategy. Urban growth boundaries or green belts, which may be perceived as a panacea to controlling a city’s growth, function best when zoning is incorporated in a way that reinforces growth boundaries, for example by restricting development beyond a boundary or green belt in order to stop ‘leap frogging’ of development into the surrounding countryside.

The confidence provided to planners in the past by zoning does not mean however that other tools – regulatory, market-based economic and fiscal instruments, and strategic planning – should not be added into the mix of available policy instruments to manage urban growth. Flexibility in choice and combination of techniques remains crucial in order to best achieve urban growth management goals. Flaws exist, for example, in the system of development control-based biodiversity management, which point to the need for a more strategic landscape-based approach. In NSW, it is



argued that a major cause of biodiversity loss is State and local government failure to comprehensively identify biodiversity values and then plan to conserve these through responsive environmental planning instruments in an across landscape approach.

Tools available under the market-based and economic approach to urban growth management are quite broad and have a number of distinguishing conceptual characteristics. Focus is placed on two broad types of market-based tools, firstly those that work within a framework of (perceived) property 'rights' such as PDR, TDR and donated conservation covenants, and secondly offset schemes. Tradeable development rights schemes such as TDR and PDR, and conservation covenants and agreements are basically voluntary in nature and seek to protect the natural resource value of an area by redirecting development elsewhere. Landowners are 'compensated' for loss of development potential either through payment by government (in the case of PDR) or private developers (in the case of TDR). Future development of the land in a manner inconsistent with a particular tradeable rights scheme is generally precluded by the imposition of a restrictive covenant over the land. Land is therefore retained in its present 'undeveloped' state, though this does not necessarily guarantee that it is actively managed to maintain its natural resource values (for example as biodiversity or agricultural land). Often, additional 'stewardship' or similar payments, or a covenant or agreement which has both restrictive (land use) and positive (land management) components is required. Indeed, conservation covenant schemes can operate outside the PDR/TDR framework, usually with landowners voluntarily donating (i.e. no compensation is payable) certain development rights or potential to an authorised government agency or non-profit organisation. Voluntary statutory covenants, under which agencies have been given legislative powers to enter into covenants with landowners, are seen as most applicable to the conservation of land in situations where the resources available to voluntary schemes are limited and so preclude compensation payments. In NSW conservation agreements are available under the *National Parks and Wildlife Act 1974* as a voluntary option for landholders with land of high conservation value.

Under an offset arrangement, developers or resource users are given the choice of either offsetting any environmental damage they cause or paying an authority to do it on their behalf. The provision of an offset is a mandatory requirement or condition of



the granting of approval to undertake development with potentially adverse environmental impacts. The arrangements operate partly through regulatory mechanisms such as permits or approvals, and partly through a market-based system, which allows one property owner who undertakes some form of environmental restoration to sell offset credits to another owner or industry seeking approval to undertake development. Several recent green offset schemes are identified in Chapter 4, though particular attention is focused on the *NSW Biodiversity Banking and Offset Scheme* – ‘biobanking’ – which was established in 2008. Initial examination of some of the key features of biobanking reveals its reliance on an ‘improve or maintain’ test to address the loss of biodiversity by developers, utilising biobank sites created by landowners to secure conservation benefits and offset impacts on biodiversity caused by development. Finally, Chapter 4 discusses some of the conceptual differences between tradeable rights and offsets schemes – the point of which is to highlight that these tools do vary in their operation, and thus can be refined and adopted to meet the specifics of different practical circumstances.

Chapter 5 assayed post-war strategic spatial planning for Sydney and found that, while there has been a gradual evolution of concern by government for natural resource conservation and environmental protection, generally this concern has failed to be translated into leading objectives of Sydney’s numerous post-war planning strategies. It is contended that, despite significant legislative reform in the area, there has been a failure of strategic spatial planning at a metropolitan or regional level, to effectively plan for the maintenance of environmental quality and management of natural resources such as biodiversity, water and agricultural land. Whether the past approach of strategic spatial planning for Sydney represents ‘growth management’ is arguable – indeed the ‘urban’ focus of past plans so as to promote the economic development of Sydney and hence the State of NSW is significant as it raises the question of ‘What are these plans managing growth for?’ This in turn relates to a main theme of this thesis, namely the failure of the growth management of Sydney to adequately accommodate environmental protection and natural resource conservation values. This has in turn detracted from the sustainability or ‘liveability’ of Sydney in both its urban and peri-urban areas.



Since the early 1980s there has been significant policy and administrative adjustment of Sydney's urban land release system, beginning with the formulation of the Urban Development Program (UDP) and culminating in the present Metropolitan Development Program (MDP) and precinct planning process of the Sydney Growth Centres. Pertinently however, during this time generally scant attention has been paid (apart from a rather feeble and reluctant 'sign-off' by the Sustainability Commissioner in 2004) to the implications of Sydney's broad growth management strategy on natural resource conservation and environmental protection, although environmental considerations may come into the selection and timing for development of individual land releases.

A clear theme that arises from an examination of Sydney's post-war metropolitan plans is that over this time the plans have fundamentally remained quite static in terms of responding to the need to manage for the sustainable growth of Sydney. Despite clear legislative intent of greater concern for natural resource conservation, as evident in some of the reforms of the EP&A Act and other environmental statutes, there has been a failure to express this concern in both the formulation and implementation of Sydney's metropolitan strategies. The malfunction of strategic spatial planning at the metropolitan/regional level on a number of counts – but especially from environmental protection and natural resource conservation perspectives – raises the questions of what is being done, and what can be done, to manage and mitigate the impacts of Sydney's growth?

Chapter 6 discusses how, simultaneously with the strategic planning and policy initiatives outlined in Chapter 5, planning and natural resource management in NSW has, over the past ten years or so, also been subject to an ongoing reform process. While the reforms have mainly been statutory – and hence largely regulatory in nature – they have also had implications for the organisational and administrative responsibilities for land use planning and natural resource management in Sydney. Although the rationale for reform has been the need for greater strategic and policy integration and removal of regulatory and institutional fragmentation, paradoxically the outcome of this reform process has seen even greater fragmentation of planning and natural resource management and administration in NSW – thereby hindering the achievement of better natural resource and environment outcomes.



Attempts at statutory reform to overcome this fragmentation have met with mixed success, as evidenced by three separate reform themes designed to integrate the legislative framework governing planning and natural resources. The first theme is the *PlanFirst* reform, a failed attempt to establish a statutory local plan for each local council in NSW that sought to integrate land use planning with natural resource management and environmental protection. The second theme relates to attempts to integrate catchment management and land use planning, through institutional and strategic means with the creation of catchment management bodies, as well as through legislative and regulatory change. To some extent, this integration of the land use planning system with the catchment management system has been successful. The third theme involves the more recent effort to integrate land use planning with biodiversity conservation. Recent evidence suggests that this attempt at integration is faltering. Overall, the failure of statutory, policy and institutional reform in land use planning, catchment management and biodiversity conservation – and to achieve better integration across these systems – paints a bleak picture for the future growth management of Sydney.

Chapter 7 examines State government approaches to urban growth management in Sydney. A major component of the Sydney Metropolitan Strategy *City of Cities* is the North West and South West Growth Centres, which effectively represent urban growth boundaries for Sydney. An important issue raised in several interviews with both State and local government officers was the need to properly manage Sydney's urban footprint by resisting pressure for premature or unplanned urban releases. This situation has necessitated rejecting calls by landowners and developers for the urbanisation of lands outside the two growth centres and the Metropolitan Development Plan.

Some of the newer mechanisms designed to conserve biodiversity – particularly, biodiversity certification and biobanking – have had an underwhelming record to date. Further, there has been a reticence by the Department of Planning to more fully embrace biodiversity issues in strategic land use planning as witnessed by the failure, with the sole exception of the Lower Hunter Regional Strategy, to produce regional conservation plans for its regional strategies. Only three EPIs received biodiversity



certification, before this process was abandoned in favour of certification of land following amendments to the TSC Act in 2010. Certification of the Growth Centres SEPP and the Conservation Plan upon which its certification is based has been the subject of criticism particularly from environmental groups, who argue for example that the conservation targets in these plans fail to contribute to broader regional biodiversity objectives.

Biobanking in NSW is still in its infancy – and at the time of writing only three current biobanking agreements were listed publicly on the website of the Office of Environment and Heritage (the former DECCW). Concerns have been expressed by some local councils in the Sydney Region about the potential location of biodiversity offsets. Such councils have argued that the offset sites should be located in the same local government area that the development is occurring, whereas some State Government agencies believe that the funds generated under the BioBanking Scheme should be used to protect larger areas of land outside the Sydney Region, where acquisition costs are cheaper.

Conservationists have also criticised the BioBanking Scheme in NSW, arguing that it will be difficult to ensure the ‘improve or maintain’ test, particularly given the high conservation value of remnant vegetation and remaining ecological communities in the Sydney Region. Fundamentally a concern which goes to the core of biobanking is whether overall biodiversity can truly be maintained, let alone improved, by offsetting. Offsets are argued to be a last resort and every effort to avoid and minimise impacts should be taken first.

If offsets are essential, then certain principles should apply: avoidance and minimisation of impacts; offsetting similar vegetation types (‘like for like’); and offsets must add to the stock of protected vegetation – an issue which relates to the location, tenure, zoning, ongoing rehabilitation and/or management, and applicable offset ratios of the land in question. While the issues are complex, allowance for the increase in the amount of protected vegetation (through rehabilitation of degraded, and active on-going management of all, biobank sites) is essential if biobanking is to produce a net benefit – that is, to meet the ‘improve or maintain’ test. Otherwise, while protecting good quality habitat on a biobank site may achieve a biodiversity



outcome by preventing it from being cleared, the result of clearing another parcel in exchange for protecting the biobank site is a net loss of habitat in the landscape. Improvement or maintenance of biodiversity values thus may only be achieved by improving existing habitat or creating new habitat through landscape rehabilitation and restoration. Active management of biobank sites – ensured through ‘conservancy’ or biobank management payments as part of a biobanking agreement – is therefore essential.

Given that the decisions of the State Government to date in the area of biodiversity conservation have been spectacularly weak in the face of entrenched property rights, the likelihood of requiring landowner responsibility for biodiversity protection is very remote without some planning incentive or financial inducement – painting a potentially bleak picture for the survival of remnant vegetation in private ownership in the Sydney basin.

Chapter 7 also considers problems associated with the gazettal of the Standard Instrument and the implications of the adoption of environment protection zones by local councils under the Standard LEP provisions. The Standard LEP template is perceived as a clumsy or blunt tool for environment protection, given that it fails to provide a full range of conservation zones, does not necessarily provide for biodiversity information to be included in planning instruments, and because some of the environment protection zones may require the incorporation of acquisition clauses. The potential to attract compensation through compulsory acquisition for down zoning or injurious affection in relation to the designation of land as environment protection zone under the Standard LEP was an issue raised by several interviewees. This latter requirement undermines biodiversity conservation and broader growth management objectives by discouraging local councils from prohibiting potentially inappropriate land uses in environment protection zones, for fear of triggering compulsory acquisition provisions that the Department of Planning and Parliamentary Counsel’s Office may require to be incorporated in these zones. Unfortunately, the current erroneous position in NSW of compensation from down-zoning is driven by policy and politics surrounding property rights, and does not reflect the law, where compulsory acquisition is only required when land is reserved or needed for a public purpose.



A number of schemes involving the acquisition of land and development rights are investigated in Chapter 7. These include the public acquisition of land required for future urban growth and betterment capture, the use of conservation covenants and agreements which may involve the purchase of land or development rights (such as the Nature Conservation Trust's Revolving Fund), and transferable development rights schemes. These tools all merit wider deployment within the context of urban growth management in Sydney. TDR has been hovering in the background of planning discourse and practice for many years but has been constrained largely by State Government policy and legal contradictions, inertia and barriers. Utilisation of public acquisition of future urban land would assist in the quarantining of other, valuable natural resource lands, from urbanisation through their exclusion from acquisition for development. This mechanism would also facilitate the protection of natural resource lands through their public acquisition for conservation, open space and landscape purposes, funded by value capture or betterment tax.

Finally, Chapter 7 examines managing Sydney's catchments, with a focus on EPIs concerned with catchment management and the Sydney Catchment Authority (SCA). Creation of the SCA and related catchment management EPIs were the direct policy response of the NSW Government to the 1998 Sydney drinking water crisis and the consequent recommendations of the McClellan Inquiry. Overall, the SCA appears to have achieved a level of effectiveness in the planning and management of Sydney's catchments not enjoyed previously by other organisations. A primary reason for this is that there has been little community or institutional opposition or political controversy in response to the activities of the SCA. Nonetheless, the SCA remains just one government organisation with responsibilities in the Sydney catchment areas, meaning that a whole-of-government approach to integrated catchment management is still to be realised.

Chapter 8 examines recent local government approaches to urban growth management in Sydney. Several councils located on the fringe of Sydney have been active in their efforts to implement a range of interrelated tools to protect natural resources and environmental quality both within their jurisdictions and also as part of a larger strategic, regional framework. Significant strategic planning investigations



undertaken by local councils have subsequently informed statutory controls in their LEPs and DCPs. This is particularly evident with the adoption by several local councils of an LEP 'overlay mapping' technique, by which natural resource mapping undertaken as part of councils' strategic planning are given statutory expression by being incorporated into their LEPs. Councils have also sought to link the planning policies and mechanisms they have adopted, to a broader State-devised regional approach in issues such as biodiversity conservation, catchment and landscape management and water quality and agricultural land protection. Therefore an integrated and geographically more extensive approach is being established by local government in the planning and management of natural resources.

Regulatory controls continue to play a key role in the planning and management of growth at the local level in the Sydney Region. Arguably land use planning controls such as zoning, minimum allotment and density controls remain essential tools at the disposal of local planning decision-makers. For example, Hawkesbury Council introduced a lot averaging provision in relation to land subdivision in a 2005 amendment to its 1989 LEP which uses community title provisions to create form of cluster subdivision, thereby ensuring the protection (and private management) of large residue lots with biodiversity values. Community title subdivision has been used in several other urban-fringe council areas in the Sydney basin such as Camden and Penrith councils as a development 'solution' in situations of land with high conservation, scenic or agricultural value.

Several local councils have attempted to implement incentive schemes such as offsets and TDRs for purposes of natural resource conservation and management. Camden Council in particular has a well-developed and thorough offsetting policy which is a major component of its *Natural Asset Policy*. Council requires an 'offsetting plan' for all development applications that impact upon ecologically significant land. The offsetting plan must outline the ameliorative measures proposed as part of the development and must cover a minimum period of five years. The recipient site must become 'secure conservation land' with a plan of management attached to a conservation covenant applying to the land. Costs of managing the land are met initially by funds provided by the offsetting procedure, and subsequently by Council through provision of a 'stewardship payment'. Several councils have also considered



TDR schemes, but these attempts require stronger policy support from State Government and have faltered in the face of legal impediments that have been contrived by Parliamentary Counsel's Office and the Department of Planning. In particular, TDR schemes proposed by Camden and Hawkesbury councils have met with this fate.

Clearly evident also from the discussion in Chapter 8 was the challenge to effective planning posed by strong local property rights interests. The pressure from this source on planning decision-making is debilitating. Planners at Penrith City Council are clearly aggrieved that the Metropolitan Strategy and Growth Centres green zones fiasco reignited the property rights issue in some rural areas in Penrith, undermining sound strategic planning undertaken in the *Penrith Rural Lands Strategy*. Similarly, efforts by The Hills Council to achieve biodiversity protection through its Rural Lands Draft LEP, which proposed to zone a considerable proportion of rural land Environmental Protection Zone, was abandoned following massive community outcry against having this zone imposed on landowners' property.

## **9.3 Conclusions and key suggestions**

A number of conclusions and key findings may be distilled from both an analysis of the wide-ranging conceptual and background literature and the specific case study of the urban growth management in the Sydney Region. Considered as a whole, the findings from the conceptual, background and case study material offer several fundamental suggestions or options for managing urban growth within the essential context of natural resource conservation and protection of the biophysical environment. The major conclusions and findings from the thesis are outlined below in terms of key options or suggestions for future growth management of Sydney.

### **9.3.1 Underlying themes**

This thesis sought to identify a model of urban growth management for the peri-urban or rural-urban fringe in Australia, based on the adoption of three fundamental concepts or frameworks. First is the recognition of the importance of natural resource conservation and environmental protection as an essential characteristic, and



objective, of growth management policy, particularly in the context of protecting these values at the juncture of urbanisation on the peri-urban fringe. Second is the acknowledgement of the significant role of the notion of ‘property rights’ in land use planning and decision-making. The third element of the conceptual framework is the utilisation of innovative approaches to growth management based on concepts such as ‘smart regulation’, market-based instruments, and integrated strategic planning and resource management (and thus moving beyond reliance on ‘command and control’ regulation). Using this conceptual framework, a model of urban growth management based on broad approaches and specific tools or mechanisms was derived (as indicated in Table 1.1 and Figures 1.1 and 1.2) and subsequently considered in detail.

While there are thus a number of tools at the disposal of planners (discussed further in section 9.3.4 below), the singular, positive, theme drawn from this thesis is not just that planners need to have a suite of mechanisms available, but also that specific, precise tools *must* be drawn upon. In the particular context of sustaining the natural resource and environmental values of the rural-urban fringe, movement away from traditional planning tools expressed by ‘command and control’ regulation is required, and greater emphasis and reliance conferred on more innovative and effective urban growth management tools. Explicitly mechanisms such as transfer and purchase of development rights, offsets, biodiversity certification, conservation covenants, statutory and voluntary property agreements, public acquisition of land prior to urbanisation, planning bonuses, cluster subdivision, urban growth boundaries, catchment management, and financial incentives and payments are identified as vital for managing Sydney’s peri-urban growth – and so warrant further consideration. Such mechanisms, it is submitted, constitute a ‘model’ policy framework for urban growth management. Indeed, their adoption and implementation is argued as being fundamental to the integrity of an urban growth management system from a natural resource and environmental protection perspective.

### **9.3.2 The need for strategic planning**

Attempts to create a more integrated planning system in NSW have been generally inadequate as they have tended to concentrate on the coordination or integration of development control and approvals only. In order to effectively address the



cumulative environmental impacts of development for example, focus must also be placed on the actual activity of strategic or forward planning, administration of the planning system, and the legislative context within which this takes place. The EP&A Act does allow EPIs – in particular SEPPs – to be made to manage natural resources on a bioregional/catchment basis. However, for the most part, SEPPs have not been used to achieve strategic planning objectives, often instead being used in a reactive way from a development control perspective, in response to a specific planning problem or issue. Generally SEPPs (and REPs to an extent while they existed) have not focussed on broader regional, catchment or other bioregional aims.

Sound strategic planning, particularly in its bioregional and natural resource management manifestations, should form the basis of all urban growth management policy. However, the rationale for strategic spatial planning for Sydney has primarily been urban and economic in focus, concentrating on the facilitation and management of urban growth and economic development of Sydney and its associated urban areas of the Lower Hunter, Central Coast and Illawarra regions. The ongoing urbanisation of the Sydney basin and these surrounding regions – often at the expense of the environmental quality, natural resource and biodiversity conservation particularly in rural-urban fringe and peri-urban areas – is the inevitable outcome of such an approach.

A strategic approach should inform planning and land use decisions and provide the framework within which other urban growth management approaches and tools are constructed. WSROC for example, in response to the need to protect rural and agricultural resources and natural environments and systems, argued in its 2005 strategic planning vision for Western Sydney *FutureWest* for the establishment of an urban growth boundary – an ‘urban/rural edge’ within statutory State plans showing the extent of urban expansion in the life of a metropolitan plan or strategy.<sup>1</sup> Recognition of the need for a new integrated, comprehensive and detailed metropolitan strategy – through what was to become *City of Cities* – was a clear admission of the perceived failure of Sydney’s three metropolitan plans of the 1980s and 1990s. Alarmingly, during this period of strategic spatial planning paralysis at

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<sup>1</sup> Western Sydney Regional Organisation of Councils (WSROC), *Future West, Final Report*, (Blacktown, Western Sydney Regional Organisation of Councils Ltd, 2005), p.72.



the regional or metropolitan level, Sydney continued to grow and the quality and extent of high value natural resource areas were further degraded. Unfortunately, only disparate, disconnected efforts towards a more integrated strategic approach to land use and natural resource management have been attempted in NSW.

Although the Department of Primary Industry was able to extract some acknowledgement of the desirability of promoting sustainable agriculture in *City of Cities*, nonetheless a strategic plan for sustainable agriculture in the Sydney Region is still required. Clearly, the traditional regulatory measures alone are not working in Sydney, as good agricultural land continues to be fragmented and eventually urbanised, in response to pressure for more land for housing. Politically however, the provision of housing is deemed preferable to retention of agricultural land. The potential solution of *urban agriculture* – integrating agriculture into the urban fabric – has not yet been grasped in Australia.

Although a strategic approach can seek to plan for and manage future land use, it generally cannot address adverse impacts caused by existing uses. Hence there is a need for other mechanisms such as regulation, incentives, acquisition and education to reduce the environmental impact of existing land uses. While the Metropolitan and subregional strategies are becoming more effective mechanisms for planning for growth in the Sydney region, the LEP and its constituent land use zoning still remains the key mechanism for implementing planning strategies and policies. Augmenting traditional land use zoning is a growing focus on development standards such as minimum allotment sizes and overlay maps, often derived from councils' earlier strategic planning investigations and studies.

### **9.3.3 Confronting property rights**

As property rights arguments gain greater political clout in Australia, planning approaches and tools that recognise the reality of property rights are increasingly necessary. Although not part of the legal, political and planning tradition in Australia, recent NSW planning examples point to the challenge that property rights now pose. These examples include the about-face on the proposed Sydney Growth Centres green zones; the continuous pressure exerted on several fringe councils for further urban



land releases and fragmentation of rural lands through smaller subdivision rezoning; advice from the Department of Planning regarding protection of development rights and inclusion of acquisition provisions in proposed environmental protection zonings under the Standard Instrument; and the general inability of traditional ‘command’ regulation – because it may restrict development potential and hence reduce economic value – to ensure that land is managed in a way that protects or enhances natural resource values and biophysical qualities of private land.

Therefore, a case has been made in this thesis for working ‘with’ rather than ‘against’ property rights. It must be emphasised however that this approach does not infer acceding to the demands of the property rights movement. Rather, it suggests that a practical solution is to recognise the existence of property rights (both real and perceived) and implement policies and mechanisms which both: (1) minimise its force as a driver of strategic planning policy; and (2) harness it as a tactical growth management tool. Strong and effective planning control is still required: for example, as firmly argued by several interviewees, a definitive and immutable urban growth boundary must be part of any urban growth management strategy for Sydney, to help resist the pressure from landowners for unplanned land releases.

In terms of the first aspect of property rights – minimising its force as a driver of strategic planning policy – implicit here is the presumption that government should determine planning policy, not landowners. This presumption has several manifestations for managing Sydney’s urban growth. First, is the need either for a betterment tax or public acquisition of land prior to urbanisation, to capture the ‘unearned increment’, or ‘development rights’ as they were referred to by the Commission of Inquiry into Land Tenures. Such ‘rights’ have been driving development expectations (both by developers and landholders through the ‘superannuation’ syndrome) and hence the pressure for continued urbanisation of land on the fringe of Sydney. Second, is the reaffirmation of the position at law that compensation is generally not payable in instances of injurious affection caused by down-zoning – and thus the insistence in the current context in NSW that compulsory acquisition should not be required as a consequence of adoption of environmental protection zones under the Standard Instrument. Contrary, erroneous advice on this



highly significant issue has been provided by both Parliamentary Counsel and the Department of Planning, and needs to be rectified as a matter of urgency.

In terms of the second aspect of property rights – harnessing it as a tactical growth management tool – greater utilisation should be made of the notion of ‘partial interests’ in land, particularly the interest or right held to develop land. These interests or rights have their own economic value to the holder of the rights which can be separated from the right to possess the land, and used as a sellable or tradeable commodity through schemes such as purchase and transfer of development rights. Importantly, concomitant with the sale or transfer of these rights or credits, a restriction needs to be placed on such land in the form of a covenant or agreement, to ensure that the rights – the sale of which the landholder has received financial recompense – are not subsequently utilised, but are instead ‘retired’.

#### **9.3.4 Utilisation of a suite of tools**

Arising from the preceding section, a clear message from this thesis is the argument for the adoption of a broader suite of planning mechanisms, justified in part from the perspective of addressing property rights expectations, to achieve planning, environmental and natural resource objectives. Included in this broader suite are approaches from the US where, due to property rights and takings issues, reliance on market-based policy tools is more common than in Australia or Britain. In particular, ‘smart regulation’, which seeks to integrate ‘command’ regulation and market-based instruments, warrants particular attention as it fundamentally operates within the conceptual context of the market and property rights working within a regulatory or statutory framework.

With a suite of land use planning and natural resource management tools at the disposal of government decision-makers, complimentary ways of negotiating through the issue of property rights may be possible. For example, perhaps the only way in which remnant vegetation on private land in Sydney can be protected is not by the prohibitive cost of public acquisition, but rather through obliging landowners to contribute to the cost of such protection, as a normal, traditional incident of the rights and obligations arising from land ownership. As part of a biodiversity offsets scheme



such as Biobanking for instance, a portion of the payment for biobank credits could include a contribution to a 'conservancy payments scheme' to fund rehabilitation and active management of biobank sites by their owners.

Greater use should be made of various tools involving the acquisition of land and development rights by both the public and private sector as a broad growth management mechanism. Pertinent tools here include the public acquisition of future urban land, purchase of development rights or covenants, and transferable development rights.

Acquisition of land needed for urban expansion or redevelopment is a little-used urban growth management tool in NSW. A suitable model exists in the form of the compulsory acquisition of land designated for New Towns in the UK. Property owners are compensated, but at an amount closer to the land's non-urban value and not to the full extent of the value added of any consequent rezoning. With the up-zoning of the land, this tool allows part of the increase in land value – the betterment or the unearned increment – to be captured by government to pay for infrastructure including open space and conservation lands. This has a further indirect benefit of ensuring that only land designated and publicly acquired for urbanisation is developed, and that other areas such as conservation, scenic and agricultural lands, do not go through this process – and hence remain intact. Using acquisition powers available under the *Land Acquisition (Just Terms Compensation) Act 1991*, an appropriate State Government authority could acquire – either compulsorily or by agreement – land identified for urbanisation.

A model of an alternative tool of temporary public acquisition and resale of land with a conservation covenant attached exists in NSW in the form of the Revolving Fund Scheme of the Nature Conservation Trust. Conservation covenants (and associated schemes such as stewardship payments) are becoming more commonly accepted across many planning jurisdictions and need to be more widely embraced across NSW as an urban growth management tool focusing particularly on biodiversity conservation.



Transferable development rights have, unfortunately, not been embraced at a State Government level in NSW. Yet successful examples exist in Australia – mainly dealing with heritage building conservation schemes implemented by local councils. The standard DoP mantra of resisting the broader introduction of a TDR scheme on the basis that the EP&A Act does not presume a development ‘right’ appears contradictory, and is undermined, when one considers that the Department’s argument for the insertion of acquisition clauses in environment protection zones is to protect landowner’s development rights!

### **9.3.5 Implementation and coordination**

Planning and management responsibilities for land use and natural resources are still fragmented between different government departments and local authorities across disparate legislative and policy frameworks. As a consequence, the reforms that have transpired to date have usually only resulted in integration within fragmented resource management and regulatory systems, rather than integration between systems. Unless this impediment can be addressed and such efforts seen in a holistic context, natural resource management, land use planning and environmental protection will not be truly integrated, much to the on-going detriment of these systems in Sydney and the rest of NSW.

Ongoing attempts at statutory or legislative integration in order to overcome strategic planning, regulatory and administrative fragmentation in NSW have generally met with failure. Lack of coordination between and within different levels of government – vertical and horizontal fragmentation – is perhaps the greatest barrier to the successful implementation of strategic land use planning, bioregional planning and integrated natural resource management. This administrative fragmentation has been particularly obvious in the management of the Hawkesbury-Nepean catchment. As recommended by the CSIRO in its 2001 audit of Sydney’s drinking water catchments, a whole-of-catchment approach to integrated catchment management needs to be implemented as a priority. To achieve this “there will need to be a reconstitution of institutional arrangements and responsibilities so as to provide a single authority responsible for the planning and management of the hydrological catchments. This



will require unambiguous legislation supported by well-defined, effective and adequately resourced institutional arrangements.”<sup>2</sup>

Ultimately, there is currently also a lack of State Government support for policy and statutory initiatives working at the local level such as VPAs, offsets and TDRs, which promote the protection of biodiversity and other natural resources such as agricultural land. This is unfortunate, as local government encounters great – but unnecessary – difficulty when it tries to implement such initiatives on its own.

## 9.4 Beyond command regulation?

To date in NSW, some of the tools forming the hybrid approach advocated in this thesis – such as TDR, biobanking and biodiversity certification – have met with mixed success. This is not a reason for abandoning tools such as these. Indeed, it has been the lack of political and state bureaucratic resolve that has largely contributed to the underwhelming record of these tools to date. This record however, merely mirrors the underachieving performance record of land use, natural resource and environmental management in this State, in part caused by largely singular reliance on traditional command and control regulation, a lack of definitive, comprehensive and integrated strategic planning, and administrative, regulatory and policy fragmentation particularly within State Government. It has been the failure to persevere with integrated land use, natural resource and environmental planning and management from administrative, policy, strategic and regulatory perspectives which has been, and remains at the heart of policy failure in this field for many years in NSW. The reluctance of NSW to push beyond the boundary of traditional command and control regulation is symptomatic of this timorous condition. Certainly command and control regulation is absolutely essential, but the pressing demands of contemporary natural resource and environmental management has meant that a tool that has its origins in separating conflicting land uses and protecting amenity in cities formed from the Industrial Revolution is, by itself, no longer sufficient. More strategic and proactive

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<sup>2</sup> CSIRO, *Audit of the Sydney Drinking Water Supply Catchments managed by the Sydney Catchment Authority. Final Report to the Minister for the Environment, NSW State Government*, (Canberra, CSIRO, November 2002), p.1, [http://www.sca.nsw.gov.au/data/assets/pdf\\_file/0005/4298/SCA\\_2002\\_Audit\\_Final\\_Report\\_Nov.pdf](http://www.sca.nsw.gov.au/data/assets/pdf_file/0005/4298/SCA_2002_Audit_Final_Report_Nov.pdf) viewed 11 January 2010.



tools which recognise that, in the context of inexorable urbanisation pressures, land use, natural resources and environmental planning and management are integrally linked, are essential so that the natural resource values of the peri-urban biophysical environment may be preserved.

Arguably, urban growth management in Sydney may no longer be merely a challenge of weighing up and balancing competing planning factors, but has become an intractable issue in which there will be inevitable losers – biodiversity loss, environmental quality decline and agricultural resource depletion – and, ultimately, reduction of amenity or liveability in Sydney. To adequately respond to the urgent need to *save* Sydney, the full range of approaches and tools at the disposal of planners and land use managers must be harnessed. These include:

1. The need for an overarching strategic planning policy framework, which integrates land use, natural resource and environmental planning and management at the regional and local levels. The identification and establishment of ‘immutable’ urban growth boundaries must be one outcome of this process, and should be integrated with a strategic plan for agricultural land in Sydney and adjoining regions. Broad natural resources management should continue to be implemented through a robust catchment management framework, while the necessity of biodiversity conservation in particular warrants perseverance with biodiversity certification.
2. The on-going role of ‘command and control’ regulation, particularly zoning and development standards such as subdivision controls. However more innovative use of these controls – such as cluster and community title subdivision and planning bonuses – needs to be more widely adopted. Regulatory mechanisms should form the cornerstone of delineating the extent of Sydney’s footprint in the form of a definitive urban growth boundary.
3. A role for supplementary mechanisms such as market-based instruments (offsets, TDR etc), PDR, public acquisition through revolving funds and of land identified for future urban use and for conservation purposes,



conservation covenants, statutory property agreements, VPAs, tax incentives and stewardship payments etc.

These approaches must be implemented as a holistic, integrated package – as a suite of tools which can be selected to suit the particular circumstances of the specific planning issue or problem to be addressed – thus a hybrid approach of ‘smart regulation’ is advocated. The underlying theme of this thesis is thus a positive one. Planners potentially have at their disposal a suite of mechanisms. However, in the context of contemporary and future urban growth management, demonstrated in the case of Sydney, this thesis argues that key mechanisms warrant further consideration. These include transfer and purchase of development rights, offsets, biodiversity certification, conservation covenants, statutory and voluntary property agreements, public acquisition of land prior to urbanisation, planning bonuses, cluster subdivision, urban growth boundaries, catchment management, and financial/tax incentives and payments. What this finding inevitably demands is a move away from traditional planning tools, exploring beyond the strictures of command regulation to the opportunities for effective planning policy implementation afforded by an urban growth management and natural resource conservation model which utilises the full range of available approaches and instruments.

Necessary legislative and policy reform and implementation to enable this model to be realised must be adopted – i.e. an proactive and facilitative approach is required – not the weak, timid, ineffectual, negative and obstructionist approach witnessed to date in NSW of being held ransom to obstacles imposed by misconceived notions of property rights and policy and legal roadblocks set up by misinformed politicians and uninformed state bureaucratic lawyers and planners. Trite as the use of the word here may seem, politicians, planners, lawyers and natural resource managers of *vision* are required.



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