Victims, Villains and Heroes: Storylines and the Discursive Construction of the Sustainable City

A thesis submitted in fulfillment of the requirements for the degree of Doctor of Philosophy

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Declaration

I certify that except where due acknowledgement has been made, the work is that of the author alone; the work has not been submitted previously, in whole or in part, to qualify for any other academic award; the content of the thesis is the result of work which has been carried out since the official commencement date of the approved research program; any editorial work, paid or unpaid, carried out by a third party is acknowledged; and, ethics procedures and guidelines have been followed.

Judith Rogers

Date:
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The journey has been a long one. On the way I have been informed and inspired by many people, students, colleagues, friends and family. Some people do, however, stand out. Professor Sue-Anne Ware, my supervisor, and my colleagues and friends Dr. Joanne Russell-Clarke and Dr. Laurie Cosgrove have not only inspired me, they have also kept me on track while at the same time forcing me to constantly re-position myself by asking the ‘why’ questions.

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Summary

This thesis is concerned with how the ‘sustainable city’ is currently spoken and written about. I ask:

- how is the idea(l) of sustainability and the sustainable city framed in discourse?
- how is it contested?
- what are the basic terms and conditions upon which agreement or consensus are reached?
- which understandings come to dominate and which are marginalized?
- what storylines and subject positions are available to participants in sustainable city discourse?
- And, finally how is transformation or change possible?

Using the 2003-2005 Australian Federal Government’s House of Representatives Standing Committee on Environment and Heritage’s Inquiry into Sustainable Cities as a case study, the thesis employs a discursive approach to analyse the Inquiry documents. What becomes evident in analysing the inquiry documents is that the word sprawl has powerful metaphorical importance in sustainable city discourse suggesting two alternative stories about the future of cities. The first, the story of decline suggests out of control growth of cities that threatens not only the resource base, but also ‘nature’, agricultural land and social stability. It also leads to isolation, loneliness, boredom, crime, obesity and a whole litany of other evils. The alternative storyline – the story of control on the other hand gives ‘us’ a choice and the only choice ‘we’ really have – the compact, contained city is a place where resources are used wisely, ‘nature’ and agricultural land are protected, and there is a sense of ‘community’. In sustainable city discourse these stories or storylines are not only difficult to disrupt or argue against, they also limits what can be spoken about, and also who can speak. It is the contention of the thesis that that the dominant focus on sprawl in sustainable city discourse effectively closes down rather than opens up discussion about the future because embedded in the use of the term ‘sprawl’ is a predefined conclusion.
Stories and storylines about the sustainable city do not, however, simply emerge in discourse, they are told and so the analysis uses positioning theory to explore what subject positions and cultural stereotypes were made available in the storylines. Far from being a passive retelling of a familiar storyline various actors positioned themselves and others within the dominant storyline by either using or challenging cultural stereotypes. Two dominant and linked cultural stereotypes emerged during the Inquiry – the suburban dweller and the consumer who are positioned as ‘villains’. Responsible for the ‘unsustainability’ of cities ‘they’ need to be ‘educated’ and once given the ‘right’ kind of knowledge individual citizens are expected to then effectively and efficiently govern themselves. This focus on ‘consumption’ as the key driver of unsustainability not only endorsed a market led approach, it also effectively exonerated industry, business and government from responsibility.

The thesis shows that the impediments to transition and change are embedded in the language used to frame the debate in the first place. If sustainability is to remain a worthwhile goal for all citizens and for government then ‘sustainability’ research must do more than develop techniques and methods to measure, monitor and map sustainability as a way of ensuring compliance, and shift towards an understanding of sustainability that acknowledges that it is ‘aspirational’, contested and open to interpretation. It is, in fact, discursive.
Introduction: The Sustainable City as Discourse

1.0 Introduction

In 'The shaky ground of Urban Sustainability: A Comment on Ecopolitics and Uncertainty' (1996) Sandilands argues that:

...it is through a process of shaking and disrupting hegemonic discourses and practices of so-called "urban sustainability" that spaces may be created for the promotion of alternative urban socioecological relations (Sandilands 1996, p. 125).

Using a volcano as a metaphor to represent both the need for shaking and the shaky ground of urban sustainability she argues that a counter hegemonic agenda must be based on a questioning of 'deeply entrenched knowledges we hold about what we desire in and from the nonhuman, so-called natural world' (Sandilands 1996, p. 128):

Sustainability must include a process by which knowledges of nature are democratised, in which we ask very seriously whose "nature" is being sustained in our projects, and in which we interrogate the relations of knowledge by which certain understandings of nature are held relevant, and others marginalised (Sandilands 1996, p. 129).

Accordingly, she argues that we need to be 'profoundly uncomfortable with institutions and practices of sustainability that allow only a tiny part of our interactions with human and non human nature to emerge as ecologically relevant, that privilege, for example, issues of toxic waste, energy, and transportation over issues of xenophobia, sexuality and imagination (Sandilands 1996, p. 129). Sandilands goes on to suggest that ‘a dangerously universalised notion of global sustainability serves to sustain capital’ and that a 'counter-hegemonic language of sustainability is a crucial foundation for the type of subversive challenge necessary to respond to these destructive, dominating relations’ (Sandilands 1996, p. 125).

Sandililand’s call to shake the ground of urban sustainability rest on claims that the dominant discourses and practices of urban sustainability are hegemonic, universalizing, dominating, destructive and also undemocratic. Her claims sit in opposition to widely held understandings of ‘sustainability’ as inclusive,
participatory and orientated towards the ‘common good’ (see Chapter 5). In the same book, Wekerle identifies two dominant discourses of urban sustainability; the ecosystems approach which ‘...aims to integrate ecological principles into urban planning by incorporating scientific, technical data on environmental degradation and environmental impacts of development and growth’ and a global restructuring discourse which emphasizes, ‘the role of global capital and transnational corporation in the on going competition among cities to maintain prosperity through growth’ (Wekerle 1996, p. 137). Both of these discourses are only partial because they leave out ‘...many of the elements that ordinary citizens would consider essential to creating sustainable and livable cities' (Wekerle 1996, p. 137). The ecosystem model, according to Wekerle, in focusing on:

...environmental variables and technical factors, often portrays people living in cities as part of the problem—the polluters or selfish consumers in automobiles and living in large suburban houses who create the problems that must be ameliorated. There is little room in this model for an analysis of urban dwellers as active agents, working to improve the environments of everyday life (Wekerle 1996, p. 137).

The global restructuring model, on the other hand, operates at the macrolevel and within this framework 'organisations and individuals are not actors, able to change the environment of cities'. Consequently it ignores ‘...the importance of the cultural, the social and the political in shaping cities and their response to global conditions' (Wekerle 1996, pp. 137-138).

In her work Wekerle highlighted an alternative discourse of urban sustainability, a ‘...holistic and bottom-up vision of urban sustainability’ which exists at the margins of the current debates on urban sustainability (Wekerle 1996, pp. 138). She examined the role of women's movements in providing an alternative discourse arguing that the dominant discourses of sustainability are deeply gendered. Women's urban social movements offer an alternative voice which links such issues as poverty, nutrition, community self sufficiency, ecology, environmental degradation and gardening within a broader framework of urban safety, transportation, housing and the environment (Wekerle 1996, p. 144). These movements, Wekerle argues ‘...engage citizens of cities at the level of everyday life in making cities more sustainable' (Wekerle 1996, p. 144).
What it at issue here for both of these commentators is the way in which the concept sustainability is currently defined and then mobilized within urban contexts, by who, for who and with what effects. The challenge for both is to seek alternative ways of framing urban sustainability in a way that is more democratic, inclusive and embedded in everyday life. These questions and this challenge are my central concerns in this thesis. It is, in effect, one attempt to shake the shaky ground upon which many of the ideas and the assumptions about sustainability and the sustainable city rest. And so as the title of the thesis suggests the focus here is on the role of discourse and language in constructing and then mobilising particular versions of what a sustainable city could or should be.

Ideas about sustainable cities have particular synergies in Australia; one of the most urbanised countries in the world with over 80% of the population living in urban areas in 2007. This figure is set to increase more rapidly in the coming decades. By 2050, Australia, New Zealand and Northern America are all expected to be over 90 per cent urban; a figure that is higher than anywhere else in the world (United Nations 2008, p. 4). This historically unprecedented growth in urban populations is expected to lead to as yet poorly understood impacts on the Earth’s environment (Bettencourt, Lobo, Helbing, Kuhnert and West, 2007, p. 2301). Therefore, managing urbanisation is considered to be one of the most urgent practical challenges of sustainability. Global sustainability is increasingly an issue of urban sustainability (Bugliarello, 2006). Discussions about how cities can become more ‘sustainable’ have therefore gained increasing momentum worldwide in recent years. Most often described in terms of resource flows – inputs and outputs - of waste and of populations – these discussions read as impartial, objective, rational, while at the same time highlighting the need for urgent action and for change. Cities themselves are seen as the drivers of ‘unsustainability’, or as vortexes (McManus 2005), while the people living in them are often objectified as an undifferentiated ‘we’ with a common interest and a common future. The challenge of urban sustainability therefore becomes one of containment – containing resource consumption, containing the impact of growth, containing waste, but also containing human behaviour. And so it is not surprising that the dominant focus in sustainable city literature is on containing the city. The well-known and often repeated alternative if cities are not contained is, of course, ‘sprawl’.
1.1 Sprawling cities

The word sprawl, when applied to cities, immediately conjures up images of out of control and disorderly growth. Containment, on the other hand, denotes control and order. This dichotomy, between containment versus sprawl is clearly captured in a number of the suggestive titles of the growing number of publications devoted to decrying the suburbs, particularly in America, including *Once there were greenfields: How Urban Sprawl Is Undermining America’s Environment, Economy and Social Fabric* (Benfield, Raimi and Chen 1999), *Road to Ruin: An Introduction to Sprawl and How to Cure It* (Nozzi 2003), *From Sprawl to Sustainability: Smart Growth, New Urbanism, Green Development and Renewable Energy* (Freilich, Sitkowski and Mennillo 2010), *It’s a Sprawl World After All* (Morris 2005), *Sprawl Repair Manual* (Tachieva 2010) and even *Sprawl Kills: How Blandburbs Steal Your Time, Health and Money* (Hirschhorn 2005) all of which so clearly conjure up a ‘story of decline’. Sprawl is often associated with everything that is ‘wrong’ with contemporary cities and the litany of the effects of sprawl and the supposed benefits of ‘controlling’ the city through containment strategies have, it has been noted, a remarkable consistency across the globe (Brehey 1996; Whitehead 2003).

So why this level of consistency and agreement globally about what constitutes a sustainable city? This is one of the key questions that I set out to explore in this thesis. The debate about sprawl versus containment is not ‘new’ nor is it a debate that has been confined to sustainable city discourse¹, so how is it that the contained or compact city has increasingly become associated with urban sustainability and with what consequences? Why the dominant focus on the spatial layout of cities at the expense of other issues particularly to do with questions of equity that seems to have increasingly fallen off the sustainability agenda?² And how could a sustainable city be spoken and written about differently?

¹ For a good overview of this debate in the American context see Hall, P 2002, pp. 273-318
² The most commonly used definition of sustainability, or sustainable development is from the WCED report *Our Common Future* first published in 1987. In that report equity is considered to be central to the achievement of sustainable development. The report states that it is ‘futile to attempt to deal with environmental problems without a broader perspective that encompasses the factors underlying world poverty and international inequality’ (WCED 1990, p. 3).
To take this position is to suggest that ‘sustainability’ is a site of struggle over words, meanings and knowledge(s) rather than a self evident ‘truth’. As Dryzek reminds us:

Sustainable development refers not to any accomplishment, still less to a precise set of structures and measures to achieve collectively desirable outcomes. Rather it is a discourse (Dryzek, 2005, p. 143).

This understanding suggests a research agenda that examines how certain understandings, or ways of speaking and writing about sustainability come to gain acceptance and ultimately dominate over others. It considers who is contesting what, about what, and to what ends. Whose voices are heard in sustainability discourse and whose are silenced? Who wins and who loses?

1.2 The Sustainable City and Storylines

What becomes evident, even after a cursory reading of the literature on sustainable cities, is the tightly storied nature of the sprawl versus containment debate globally (see Chapter 6). Presented as a clear choice between two future possible worlds – one of decline and one of control these storylines leave little choice at all – because who would chose a future of unsustainability, of decline, of sprawl? As Stone argues two broad narratives dominate policy discussions – the story of decline and the story of control. The story of decline ‘…usually ends with a prediction of crisis–there will be some kind of breakdown, collapse, or doom–and a proposal for some steps to avoid the crisis. The proposal might even take the form of a warning: Unless such-and-such is done disaster will follow’ (Stone 2002, p. 138). The story of control, on the other hand, suggests that while a situation is bad and perhaps getting worse it can be brought under control. But this means that a choice needs to be made. As Stone suggests, ‘Stories of control offer hope, just as stories of decline foster anxiety and despair. The two stories are woven together, with the story of decline serving as the stage setting and the impetus for the story of control’ (Stone 2002, p. 138).

Understood as stories shifts attention away from the need to confirm or deny whether compaction or sprawl will lead ‘us’ towards or away from sustainability towards a position that questions how it is that
sustainability is framed in this way. Or in other words, rather than attempting to identify which strategies could lead to more ‘sustainable’ outcomes, and in the process asserting a particular vision of the future, attention shifts towards a focus on discourse and a consideration of what alternative storylines about the future of cities can be and are told, which are marginalised in the process and more importantly why. Visions of future sustainable cities are no more than projections of a desired state into the future, based on a set of values and beliefs that may not necessarily be shared by all people all of the time and discourse analysis allows for an analysis of not only the framing of the dominant discourse but also allows for a consideration of alternative, more marginal discourses as well. It can also help to explain why there is such a level of consistency and repetition in discussions about sustainable cities and in sustainability discourse more generally.

Hajer argues that policy stories and storylines do, however, allow for discussion to take place. They provide a way of simplifying and unifying a complex range of information, ideas, values, ‘facts’ into a plot, a story that ‘sounds right’ allowing for discursive closure (Hajer 1995, p.63). However, these stories do not simply emerge in discourse they are told. As Hajer explains:

> Each policy discourse comes with its own power effects as it shapes the knowing and telling one can do meaningfully…Yet discourses are not static and do not exert power by themselves. The question is how discourses are taken up in a process of mutual positioning: the ways in which actors intersubjectively create and transform political conflicts using language (Hajer 2003, p. 107).

In order to engage in a discussion individual actors adopt subject positions which are made available through the storyline, and:

> Once having taken up a particular position as one’s own, a person inevitably sees the world from the vantage point of that position and in terms of the particular images, metaphors, storylines and concepts which are made relevant within the particular discursive practice in which they are positioned (Davis and Harre’ 1990, p. 46).

The focus of research in this field is therefore not on how often something was said to verify the dominance of a particular storyline in order to reach ‘consensus’, but rather to consider how participants
positioned themselves and others in relationship to the available storylines. In line with this the research questions that have guided the research here are as follows:

- how is the idea(l) of sustainability and the sustainable city framed in discourse?
- how is it contested?
- what are the basic terms and conditions upon which agreement or consensus are reached?
- which understandings come to dominate and which are marginalized?
- what storylines and subject positions are available to participants in sustainable city discourse?
- And finally how is transformation or change possible?

In order to answer these questions the aim was to move from the broader discourses around sustainability and sustainable cities, or the macro level as outlined in chapters 5 and 6, towards a specific site of argumentation (Hajer 2006, p. 72) or the micro level using an example or case study.

1.3 The Case Study: Sustainable Cities 2025

The Australian Federal Government House of Representatives Standing Committee on Environment and Heritage’s Inquiry into Sustainable Cities 2025 was chosen as a case study. At the time of its announcement the Inquiry was seen as a major watershed in Australian Urban Policy (see for instance McManus 2005, p. 1). The Inquiry presented an opportunity to consider the future of Australian cities in a period of rapid urbanisation and at a time when population growth was and continues to place increasing pressure on not only the resource base and on existing infrastructure. It also presented an opportunity, framed as it was within the context of sustainability, to open up the debate about alternative futures. The Inquiry attracted 196 submissions from participants who aimed in some way to influence how ‘sustainability’ and ‘the sustainable city’ could and should be understood and implemented. In addition 15 public hearings were held in 6 capital cities – Canberra (8), Sydney (3) Melbourne (1), Perth (1), Brisbane (1), Adelaide (1). The material from this Inquiry as it was released into the public domain between 2003 to 2005 provided a rich body of material to develop an understanding of the way in which
the sustainable city is currently understood and contested in Australia and forms the basis of chapters 7, 8 and 9.

The methodology and methods adopted informed not only the research approach adopted in this thesis but also the way in which the discussion was structured. The following provides a brief overview of each of the chapters in turn.

1.4 Chapter outline

In Chapter 2 I identify three key approaches to research in the broad field of sustainability. The first approach is concerned with definitions of sustainability – what it is and what it means for practice. The second key approach is concerned with implementation with researchers focussing their efforts on developing tools and techniques to measure ‘progress’ towards or away from sustainability in a way that is relevant and easily translatable for policy makers. The third approach, the approach adopted in this thesis is concerned with sustainability as a discourse. Authors adopting this approach are much more concerned with the effects of discourses about sustainability rather than establishing what it could or should mean in practice.

The aim here was to establish not only the limitations of approaches to research in the field of sustainability but also to establish why I adopted the approach I have. Chapter 3 therefore considers broad questions like - what is discourse and what is discourse analysis, before moving to a discussion of the applicability of discourse analysis to environmental and sustainability discourse. Two key traditions are identified that differ in particular around questions of discourse and social change. The approach I have adopted in this thesis draws in particular on Foucauldian perspectives on discourse analysis particularly with regards to questions of power, governmentality and social change. Additionally I have drawn on narrative policy analysis and on positioning theory to develop a method of analysis, and the thesis draws quite specifically on positioning theory as a useful framework for not only structuring the thesis but also for analyzing data. The specific methods employed are detailed in the next chapter, Chapter 4. While presented in a linear way, as I have emphasized, the key to the research approach was
a reflexive one involving a continuous process of revisiting the data. Importantly, I have also understood both sustainability and sustainable city discourse as data, or more specifically as storylines. The next two chapters, chapters 5 and 6, therefore examine both sustainability and then sustainable city discourse not as background but rather as constitutive of the storylines that have come to dominate the way in which the future of cities is understood both globally and in Australia.

Chapter 5 sets out to trace the way in which these storylines manifested firstly in early environmentalism (or the environmentalism of the 1960’s and 1970’s) and how they were taken up and reinforced in sustainability discourse. The twin tropes of hope versus despair I argue provide an organising framework for discussions about the future. The chapter also explores the emergence of sustainability and sustainable development as a metanarratives that bridged the gap between the alarmist and apocolyptic messages of early environmentalists and those they opposed – business, industry and government. What the chapter attempts to do is demonstrate how these environmental storylines were captured and reframed to become a more palatable ‘metanarrative’ (Roe 1994) based around the concepts sustainability or sustainable development.

In Chapter 6 I examine how this framing is reflected in a specific discourse about the sustainability of cities. The chapter focuses on the storylines that are dominant in sustainable city discourse and considers how these reflect the broader discourse around sustainability and sustainable development. In doing so I attempt to explain why there is such a level of consistency in the way in which sustainable cities are spoken and written about globally. The term sprawl has become synonymous with ‘unsustainability’ and use of the term has entered into popular dialogue to signify and to explain a plethora of contemporary urban ills as diverse as inequity, obesity, loss of green spaces along with isolation and loneliness. Sprawl is almost always portrayed as both consumptive and destructive and sits in contrast to its alternative the compact, sustainable city that is equitable, healthy, environmental friendly, lively and vibrant. And so the overriding focus in sustainable city literature is on changing the form of cities from sprawling to compact as a way of delivering ‘sustainable’ outcomes. However while the chapter demonstrates the way in which the concept sprawl functions in sustainable city discourse it doesn’t explain why.
The next three chapters, chapters 7, 8 and 9 therefore focus on a specific Australian case study. The aim was firstly, to consider how dominant ideas about what constitutes a ‘sustainable city’ frame debate in Australia and with what consequences. What becomes clear is that the term ‘sprawl’ and the storylines that can be derived from it effectively allowed discussion to take place. It allowed participants with different interests and concerns, ideas and aspirations to engage in discussion and debate using a common language. In this particular instance, however, the dominant storylines did not go entirely unchallenged. Objections involved either reversing the ordering of the storyline, drawing on the discursive resources available in the dominant storyline to argue against the compact city as a sustainable outcome, offering alternative evidence to suggest flaws in the logic of the dominant storyline or by simply challenging the language used. These critiques offered the possibility of an alternative storylines or scenarios, framed in terms of equity rather than sprawl.

In chapter 8, I consider questions of who more closely - who was involved in the inquiry and whose voices were absent, before turning to an examination of the positions that were available to and used by participants in the Inquiry. This is followed in Chapter 9 with a review of the outcomes of the Inquiry with a particular emphasis on the Final Report. In this chapter I consider quite specifically what change was seen as desirable and how that change could occur. The chapter concludes with the observation that the final result of all of these discussions was that the responsibility for the unsustainability of Australian cities and the implementation of ‘sustainability’ measures was placed firmly in the hands of ‘ordinary’ everyday citizens as consumers. This meant that the outcomes of the Inquiry were extremely limited, offering little advice or possibilities for change and transformation. The ‘problem’ and the ‘solution’ had already been predefined.
Approaches to Sustainability

2.0 Introduction

Sustainability is a concept, like liberty, justice, democracy, tolerance and freedom that lacks a clear and agreed on definition. It is, however seen as ‘…one of those obviously right, intuitively essential, and fundamentally significant ideas’ (Cooper and Vargas, 2004, p. 21). The ‘problem’ of sustainability is for many commentators one of implementation (Cooper and Vargas, 2004). Framed in terms of urgency and the ‘common interest’ there ‘…is a palpable pressure to conform’ and ‘questioners are immediately labeled as being less committed to the cause of sustainability than those who do not question’ (Onwueme and Borsari 2007, p. 49). As Rydin (2003) notes:

…but what is the ‘cause of sustainability’? Far from being self evident, many texts on sustainability begin by acknowledging that sustainability is a contested concept with multiple meanings. As Becker, Jahn and Steiss observe, ‘the only consensus on sustainability appears to be that there is no shared understanding’ (Becker, Jahn and Steis 1999, p.1). One only needs to look at the range of concerns that fall under the ‘sustainability’ banner to gain some sense of this – from energy use to climate change, peak oil, transport, water shortages, population growth, food security, obesity, poverty and environmental justice, resource depletion and species loss. And all of these concerns are accompanied by particular value judgements, assumptions or moral positions about which concern could or should be privileged over another, or what is the most appropriate framework to integrate them all. This has led to a diversity of approaches to researching and writing about sustainability. Three key approaches stand out (Alvarez and Rogers 2006, p. 176) which form the basis of the discussion in this chapter.
The first approach is concerned with definitions of sustainability – where they have emerged from, what they attempt to achieve and how they can be compared (Baker, Kousis, Richardson and Young, 1997; Haughton and Hunter, 1994; Rees, 1999, Redclift, 1987, 1996, Hopwood, Mellor and O’Brien 2005). The second approach is more reductive. These writers frustrated by what they see as endless discussions over meanings and definitions, argue that we need to get on with the task of implementation. The focus is on establishing what is unsustainable, how to make practices more sustainable and how to evaluate sustainable outcomes. This is the world of checklists, indicators, triple bottom-line accounting and ecological footprints (Wackernagel and Rees, 1996). It is managerial and based on the premise that once we have enough of the right kind of knowledge the planet (and the people who inhabit it) can be managed ‘sustainably’. Debate centres on whether management does or should occur at the local or the global level (see for instance, Redclift, 1996). One final approach focuses on sustainability as discourse – a way of defining and controlling the agenda for change and development across the globe (Darier, 1996; Luke, 1999, 2005; Peace, 1997; Sachs, 1992; Sandilands, 1996, 1999; Shiva 1992; Werkle, 1996). Such work is concerned much more with the on-the-ground effects of discourses about sustainability rather than establishing what it could or should mean in practice. The overriding focus is on the questions - sustainability of what and for whom. This chapter provides an overview of the first two approaches before briefly introducing the third approach that is then explored in more detail in chapter 3.

2.1 Defining Sustainability

The first approach discussed here focuses on different definitions of sustainability and while the most commonly accepted definition of sustainability remains that coined by the Brundtland report – ‘development which meets the needs of the present without compromising the ability of future generations to meet their own needs’ (World Commission on Environment and Development 1990, p. 87), how this can be refined and translated into practice remains the subject of much debate.

In broad terms the concept, sustainable development, suggests the need to integrate environmental concerns with social and economic ones, often depicted as a series of nested diagrams.
The simplicity of the diagram allows the concept to be seen as commonsensical and so masks its inherent complexity, allowing, different sectors of populations – business, industry, government, non-government organisations (NGOs) or the ‘community’ to claim the sustainability agendas and use it to bolster their own interests, concerns and values. As a result the Brundtland definition has been criticised for its vagueness, its multi-interpretability, its anthropocentrism (Baker, Kousis, Richardson and Young, 1997) and the inherent lack of direction for implementation.

The breadth and ambiguity of the concept along with its potential for multiple interpretations raises particular dilemmas for researchers and practitioners and so attempts have been made to develop typologies that distinguish between different definitions and approaches to sustainability and sustainable development. A distinction is often made, for instance, between ‘weak’ sustainability and ‘strong’ sustainability which reflect the long standing differences in environmental thought between deep green ecology and light green environmentalists (Haughton and Hunter 1994, p. 20). Described as ‘two starkly differing economic paradigms’ (Neumayer 2003, p. 7), the weak sustainability position is characterized as being based on the view that natural capital can potentially be replaced with human made capital stock. Therefore, achieving economic development that is compatible with environmental protection is relatively easy (Haughton and Hunter 1994, p. 20; Neumayer, 2003; Pearce, Markandya and Barbier 1989). ‘Strong’ sustainability, on the other hand, represents a profound challenge to the status quo, being based on the view that human made capital stock and natural environmental capital are not always interchangeable. Strong sustainability calls for a shift away from neoclassical economics towards ‘ecological economics’ (see for instance Daly 1973, 2007; Daly, Cobb and Cobb 1989; Prugh, Costanza and Daly 2000). Using different terminology, Rees (1999) has distinguished between an ‘expansionist world view’ and a ‘steady-state (ecological) worldview’. The expansionist world view is associated with neoclassical economics where the economy is understood as an independent, self-regulating and self-sustaining system which is not seriously constrained by the environment. Proponents promote economic growth and place a great deal of faith in market mechanisms – where rising prices for scarce resources leads to conservation of those resources and substitution (Rees 1999,
p29). The expansionist model views the environment as an infinite source of resources and a sink for wastes. Like the weak sustainability position it does not challenge current patterns and processes of economic growth and is perhaps best represented by market environmentalism. The alternative world view, the steady-state (ecological) world view, sees economy as a wholly dependent subsystem of the ecosphere. As a consequence, the economy is governed by thermodynamic laws, rather than 'simple' neoclassical analysis. The economy draws on energy and material produced by 'nature', transforms them into useful goods and services and then returns them to the environment as waste. These processes, like all processes in 'nature' are subject to the second law of thermodynamics which is defined by Rees as follows:

...every energy/material transformation produces an increase in net entropy - a permanent degradation of available energy and dissipation of matter (resource depletion and pollution). In thermodynamic terms then, nature is the real producer; all economic activity involves consumption and invariably contributes to the human ‘load’ on the environment (Rees, 1999, p. 31).

Economic activity is sustainable as long as the consumption of energy and materials by the economy is less than its production in nature. From this perspective, the global economy is currently consuming energy and material at a rate far greater than that being produced in the ecosphere and is therefore unsustainable.

A more elaborate approach has been taken by Baker, Kousis, Richardson and Young (1997) who have erected a ladder of sustainable development to explore the ‘diversity of policy options associated with the different meanings attributed to sustainable development’ (Baker, Kousis, Richardson and Young, 1997, p. 8).

The ladder attempts to track different approaches to sustainable development across a breadth of areas or concerns and includes biophysical, political, economic, philosophical and social criteria and considers implications in terms of policy. The bottom rung of the ladder is termed the ‘treadmill’ of development which is akin to Rees’s Expansionist world view. This approach is characterized by a belief that technological development will solve future environmental problems and the natural environment is viewed exclusively as a resource base for future development. The next rung of the
ladder is termed ‘weak sustainable development’. This approach is represented by arguments that environmental problems can be solved through the appropriate application of neoclassical economics. The next rung is ‘strong sustainable development’ which is based on the view that environmental protection is a precondition of development. This position has elsewhere been labelled ecological modernisation (Gleeson and Low, 2000; Harvey, 1996; Hajer, 1995). Ecological Modernisation requires a high level of government regulation and control at local, national and international levels and relies on the mobilisation of scientific expertise and corporate technological skills. At the top of the ladder is what Baker, Kousis, Richardson and Young label the ‘ideal model’ of sustainable development. This approach represents ecocentric perspectives on the environment. What is to be sustained is the integrity of the earth’s ecosystems which requires a radical transformation of human values and institutions. In the ladder an increasingly ecocentric position is equated with bottom up community involvement and with increasing social equity; an equation that is not necessarily endorsed by all commentators. Hopwood, Mellor and O’Brien (2005) for instance have constructed a map of what they argued are key concerns and positions in the debates over sustainable development.

The authors identify three broad views of the nature of the changes necessary in political and economic structures and human-environment relationships to achieve sustainable development – status quo, reform and transformation. They argue that the status quo view currently dominates policy and that the language of sustainable development has been coopted to justify ‘business as usual’ (Hopwood, Mellor and O’Brien 2005, p. 48). Transformation requires an increasingly ecocentric position on the environment but as the map makes clear this does not necessarily equate with increasing participation or equity.

There are also those who systematically question the idea of sustainable development in an attempt to reach a clearer definition of the concept. Hollicks, for instance, argues that ‘Sustainability’ is in danger of achieving the dubious status of "motherhood" because it seems to mean all things to all people’ (Hollicks, 1990, p. 20). He argues that if we are to succeed in promoting ‘true’ sustainability and preventing the term from being hijacked by traditional development interests, it is important that we
debate the concept and develop clearer definitions of it as well as considering practical ways to implement it (Hollicks, 1990, p.20). We need to consider the following questions:- Sustainable of what, for how many and at what level, for how long and over what area? (Hollicks 1990, p. 20-23).

Hollicks concludes that there can be no single definition of such a complex concept. Rather there are many potential sustainable societies with different combinations of culture, environment, economic systems, technology and rate of change. He argued, however, it is possible to define some broad characteristics of a sustainable society which are common to all viewpoints. These are:

1. Flexibility and able to adapt to change
2. A low level of resource consumption
3. and, a sustainable society must be cautious (Hollicks 1990, p. 23).

Other commentators focus on the integration of the core concepts: ecological responsibility, social equity and economic development. The weight given to each in attempts to define and operationalise sustainable development varies and the lack of integration between these different dimensions remains an enduring debate. As Gleeson and Low argue:

Sustainable development ...is about the achievement on a global scale of three principles: economic development, social justice and ecological responsibility. These principles exhibit a dialectical tension. Sustainable Development is in practice always likely to be a shifting compromise among them. The weight given to each of these principles in different philosophical approaches varies greatly and it may be argued that in some variants only two are present: for instance economic environmentalism and ecological responsibility in market environmentalism and ecological responsibility and social justice in the ecocentric model. The common element is ‘ecological responsibility’ without which the discourse of sustainability cannot be distinguished by its antecedents (Gleeson and Low 2000, p.6).

Integration of all three dimensions of sustainable development is, however, difficult in practice as Drummond and Marsden note:

Most current approaches focus on and privilege a particular dimension, be it economic, environmental or social, and what results is often something less than sustainable development. Sustainable development will remain little more than rhetoric unless it can be used to inform policy in objective ways, its credibility is impeached by any approach which through partiality or prioritisation implicitly reduces the concept to something less than that which a properly holistic conception requires (Drummond and Marsden 1999, p. 10-11).

Likewise Giddings, Hopwood and O’Brien (2002) point out that in most debates about sustainable development either the environment or the economy is given priority which results from ‘…approaching and tackling issues of sustainable development in a compartmentalised manner’
Giddings, Hopwood and O’Brien 2002, p. 189). The separation of economy, environment and society in models of sustainable development leads to a technological approach where the focus is on pollution control, lower resource use and greenhouse gas trading rather than tackling what they described as ‘deeper’ issues or seeing the connection between each of the sectors. For these authors technical solutions like changing interest rates, benefits or taxation are ‘…attractive to some as they can be introduced fairly quickly and do not involve a fundamental examination of the relationship between economy, society and environment’ (Giddings, Hopwood and O’Brien 2002, p. 189). They divert attention away from asking questions that are important to getting at the ‘core of’ sustainable development: questions which include ‘those about the nature of our society, what the policy priorities are, how decisions are made and in whose interest’ (Giddings, Hopwood and O’Brien 2002, p. 190) because as they assert ‘social issues often fall off the sustainable development agenda (Giddings, Hopwood and O’Brien 2002, p. 190). Rather than attempting to integrate social, economic and environmental factors by simply combining aspects of them all the authors argue, in a similar way to Hollicks, for a principles based approach. This is because:

Until now the three sectors have been considered as if there is an environment, an economy and a society; assuming that each sector is a unified entity. This, of course is a further abstraction. At different spatial scales different environments, economies and societies are evident (Giddings, Hopwood and O’Brien 2002, p. 192).

Reducing society down to a single entity ‘…gives precedence to the dominant society of official structures, ruling power relations and western culture’ (Giddings, Hopwood and O’Brien 2002, p. 192). For these authors, the focus needs shift towards human well being in sustainable development strategies but based around principles. Drawing on Haughton (1999) they suggest five equity principles:

(i) futurity – intergenerational equity
(ii) social justice – intragenerational equity
(iii) transfrontier responsibility – geographical equity
(iv) procedural equity – people treated openly and fairly
(v) inter-species equity – importance of biodiversity (Giddings, Hopwood and O’Brien 2002, p. 194).

Focussing on principles rather than attempting to integrate different sectors means that different questions can be asked about any policy or action. For instance:
…are benefits and losses shared fairly, now and in the future; is the quality of life improved and in an equitable manner; do people have an equal access to decision-making; do decision-makers carry responsibility for, and feel the effects of, their decisions; will the benefits last; does this protect or improve biodiversity; will this ecosystem continue into the future; will our children and grandchildren approve of the decisions and do the proposals encourage an integration of policies? (Giddings, Hopwood and O’Brien 2002, p. 194).

What is clear for these authors is that sustainable development requires change beyond technical solutions towards a shift in ‘how humans see the world’ (Giddings, Hopwood and O’Brien 2002, p. 195). Rather than attempt to integrate what are still seen as distinct compartments or ‘silos’ what is required ultimately is integration based on principles, a need to overcome barriers between disciplines to a trans-disciplinary position and a shift in ‘world view’.

Underlying all interpretations of sustainable development are differing world views (Giddings, Hopwood and O’Brien 2002, p. 188) and so one of the major concerns for these authors is on language and meaning or the way in which categories like social, economic and environmental are defined and then mobilised in sustainable development discourse and with what consequences. Their analysis highlighted the need to consider how the categories social, economic and environment are understood in sustainable development discourse, to consider questions of power - whose voices are heard, who is included and who isn’t, what ‘solutions’ and/or tools are proposed and how these are informed by underlying positions or world views.

Concerns about lack of integration have led other commentators to distinguish between sustainability and sustainable development in order to make some sense of the complexity involved because although the terms are often used interchangeably many commentators argue that they mean quite different things:

In practice, the inherent ambiguity of the idea is often exacerbated by the fact that a range of terms such as sustainable development, sustainability, environmental sustainability, sustainable growth, etc are used more or less interchangeably when in fact they are held to have specific and significantly different connotations (Drummond and Marsden, 1999, p. 7).

Sustainability is understood by Drummond and Marsden to be concerned with the ‘environment’ and so can be defined quite precisely, while sustainable development is a broader social objective (Drummond
and Marsden 1999, p. 7). Mitlin and Satterthwaite, in their analysis of sustainable development and cities, also distinguish between 'sustainable' and 'development'. They argue that there is a lack of consensus on what sustainability might mean when applied to human activities and institutions and that the term, sustainable development, in their estimation has been inappropriately applied. They argue that much of the literature on sustainable development tends to concentrate on 'ecological sustainability' as the goal of sustainable development, while the rights, needs and priorities of the world's poor are ignored (Mitlin and Satterthwaite 1996, p. 65).

Other commentators argue that sustainability has the potential to be transformative because it is a more complex concept reflecting the more traditional concerns of environmentalism, while sustainable development is seen as a discourse that serves to reinforce dominant institutions and practices, including capitalist accumulation and commodification (Kipfer 1996, p.117; Hattingh Smith 2005, p. 342). Harvey suggests that the promotion of sustainable development in Our Common Future ‘...situates it against the background of sustaining a particular set of social relations by way of a particular set of ecological projects’ (Harvey 1996, p. 148).

This tension between the social, economic and environmental dimension of sustainability suggests that no one disciplinary approach is enough because sustainability inhabits ‘...a more or less unexplored borderland that cannot be appropriately investigated either by social or natural sciences alone’ (Becker and Jahn 1999, p.3). Yet how this multi disciplinary space or ‘borderland’ between the physical and the social sciences (and using what methods) is negotiated within the broader discourse is deeply contested.

As Szerszynski, Lash and Wynne have complained:

…the social sciences, in their embryonic grappling with the environmental agenda, have hitherto largely proceeded uncritically on the basis that the environmental crisis exists simply as a material substrate of the social, defined by scientific inquiry. The increasing role of the social sciences in environmental policy knowledge generation has been attended by an intensification of social scientific knowledge – positivist, rational-choice, economist, behavioural even – thus obliterating the possibility that the human conceptions reproduced in such scientific discourses may well be part of that which has come to be crystallised as the modern environmental problem (Szerszynski, Lash and Wynne 1996, p. 2).
The dominance of the natural sciences in sustainability research has, according to other commentators led to a focus on absolute limits:

Driven by a concern with absolute limits, conventional environmental policies are mainly concerned with setting up environmental targets that are based on scientifically defined critical loads or the carrying capacity of ecosystems. Strategies to achieve these goals mainly draw on technological improvements, while social issues are primarily taken into account with respect to their smooth and efficient implementation. Accordingly, social science knowledge is mainly incorporated in an instrumental way, for instance, in order to increase public acceptance of technological innovations (Becker Jahn and Steiss 1999, p. 9).

Similar concerns have also been raised by Macnaghten and Urry (1998) who argue that:

…the role of the social scientist in the analysis of global environmental change has been largely seen as that of a social engineer, as someone who manipulates and ‘fixes’ society so as to facilitate the implementation of a sustainable society specified in essentially technical terms (Macnaghten and Urry 1998, p. 6).

For these authors what remains under-theorised is how the ‘problem’ of sustainability (or environment) is defined in the first place before implementation proceeds. If the ‘problem’ is defined in terms of biophysical limits translated using ‘scientific’ data alone then too often the role of the social sciences is simply to ensure that the ‘social’ falls into line. Becker, Jahn and Steiss suggest that focusing discussions on unsustainability would overcome these problems with definition and move discussions away from ‘preservation’ towards a more dynamic process orientated approach:

…the term ‘sustainability’ should be used primarily in a negative definition in order to identify states and processes that are unsustainable. Defining non-sustainable states opens a corridor for different paths to (more) sustainable states, limited by ‘crash-barriers’. This view highlights the importance of working with process categories (Becker, Jahn and Stiess, 1999 p. 1).

Drummond and Marsden (1999) also place emphasis on ‘unsustainability’ arguing that focusing on why unsustainable outcomes are the ‘norm’ provides the ‘key to understanding how more effective approaches to sustainable development might be formulated’ (Drummond and Marsden 1999, p. 7).

This is because Sustainability debates:
...need to move beyond the somewhat naive conceptions of a ‘resource crisis’ engendered by publications such as limits to growth (Meadows, et al 1972) and that in practice sustainability normally involves strategies designed to define and subsequently police some form of sustainability limits (Drummond and Marsden 1999, p. 7).

Such approaches, they argue, address the symptoms rather than the causes of ‘unsustainable’ practices. However, the question still remains how do we ‘know’ unsustainability when we see it? Who decides what is ‘unsustainable’ and for whom? Focussing on ‘unsustainability’ appears at first to provide a way out of the impasse of defining ‘sustainability’, however, it is based on the assumption that unsustainability is unproblematic. Drummond and Marsden’s (1999) arguments about resource limits are, however, pertinent. They suggest that an emphasis on biophysical limits represents a narrowing of the idea of sustainable development and sustainability to what could be called environmental sustainability.

What all of the authors discussed above share is an interest in exploring definitions of sustainability as a way of making sense of the breadth and diversity of approaches prior to implementation. All share a concern that sustainability and sustainable development defined narrowly as a technological problem limits the possibilities for change and transformation. For these authors a broadening of the discussions to include questions of values and of meaning is necessary to move beyond what currently is, to what could be, in the future. Other authors, however, are much more concerned with implementation. For them there is an often urgent need to fix the meaning of sustainability once and for all so that the task of implementation can proceed. The complexities, controversies and the contestation are stabilized so that policy making can proceed (Roe, 1994).

2.2 Implementing Sustainability

The second key approach explored here is therefore concerned with implementation. These authors focus their efforts on developing tools and techniques to measure ‘progress’ towards or away from sustainability in a way that is relevant and easily translatable for policy makers. A prominent approach is the development and use of sustainability indicators and there are now hundreds of different indicators and indices that are used in a variety of contexts, by different users and for different purposes.
The following discussion is therefore general rather than specific because it would not be possible to capture the sheer volume of approaches here. Instead after introducing what sustainable indicators are and what they attempt to do it, the discussion consider the key challenges and assumptions embedded in approaches that attempt to measure sustainability.

2.2.1 Sustainability Indicators

The impetus for the development and popularity of sustainability indicators as a way of measuring ‘progress’ came from the Earth Summit that established a mandate for the United Nations to establish a set of indicators (Bell and Morse 2008, p. 3). Specifically, Chapter 40 of Agenda 21 identified a lack of data as a major impediment to the achievement of sustainable development and expressed the need to formulate sets of indicators to monitor progress towards sustainable development at international, national, provincial and local levels (United Nations Department of Economic and Social Affairs 1992).

Sustainability indicators are designed to not only measure progress towards, but also away from ‘sustainability’ and therefore, rely on a stable and fixed definition of the term. According to McGlade, the ‘…main purpose of any sustainability indicator framework is to provide a comprehensive a highly scalable information-driven architecture that is policy relevant and understandable to members of society and will help people decide what to do’ (McGlade 2007, p. xix). Sustainability indicators are therefore as much a communication tool as they are a measurement and so one of their key attributes is the simplification or translation of complex information or data so that it can be easily understood by decision makers and members of the public. Data is understood to provide objective ‘facts’ that are scientifically rigorous which then needs to be translated and simplified to make it understandable. Unlike environmental indicators, sustainability indicators also attempt to capture the dynamics of change across the three pillars of sustainability, reporting on trends through time and indicate where policy decisions need to be made. According to the United Nations Division of Sustainable Development:

Indicators can provide crucial guidance for decision-making in a variety of ways. They can translate physical and social science knowledge into manageable units of information that can
facilitate the decision-making process. They can help to measure and calibrate progress towards sustainable development goals. They can provide an early warning, sounding the alarm in time to prevent economic, social and environmental damage. They are also important tools to communicate ideas, thoughts and values—(United Nations Division of Sustainable Development 2001 p. 2)

One of the most comprehensive sets of indicators are those developed by the United Nations Division of Sustainable Development between 1995 and 2001 to assist decision making processes at the national level. These indicators reflect issues ‘generally common to all regions and countries of the world’ (United Nations Division of Sustainable Development 2001) and were developed within a framework of 15 themes and 38 sub-themes. For each of these themes and sub themes 58 core sustainability indicators were identified along with methodology sheets. Initial development of these indicators was based on a driving force – state – response (DSR) model or framework, a linear cause-effect approach to indicator development where ‘…driving forces generate the state of what is experienced which, in turn, may require something to be done’ (Bell and Morse 2008, p. 29). Figure 2.4 provides an outline of key attributes of these types of indicators.

This framework for indicator development has remained popular, and has since been adapted to include impact indicators or the Driving force, state, impact, response framework (DSIR). This framework is used, for instance, by the United Nations Environment Programme’s (UNEP) Global Environment Outlook project3. Another global indicators project using the same framework is the Environmental Sustainability Index4 which ranks individual countries according to environmental performance:

...as a policy tool for identifying issues that deserve greater attention within national environmental protection programs and across societies more generally. It also provides a way of identifying governments that are leading the way (as well as laggards) (Hak 2007, p. 361).

3 http://www.unep.org/geo/

### Types of Sustainability Indicators (SIs)

1. **State SIs** describe the state of a variable. For example, in the case of environmental quality, one may determine the soil’s physical and chemical properties, or the concentration of a pollutant in water. Other more social examples may be the human population density, income equality, female and male wage ratio, life expectancy at birth and maternal mortality rate.

2. **Driving Force SIs** gauge a process that, in turn, will influence a state SI. These are also known as control or pressure SIs. For example, a control SI may be the rate at which a pollutant is passed into the environment.

3. **Response SIs** are employed to gauge required progress in the response of governments, for example, to achieve adequate values of state and pressure indicators.

4. **Impact SIs** include factors such as the incidence of lung disease in humans, which in turn would be influenced by the level of air pollution.

Adapted from Bell and Morse 2008, pp. 28-31

Sustainability indicators, therefore, not only translate scientific ‘facts’ in a way that is easily understood, they also need to be framed politically so that decision makers can and do act. Here public understanding is of utmost importance as a vehicle for not only exerting pressure on decision makers but also to gain support (and compliance) for decisions that have or will be made. Headline indicators have proved particularly useful for this task. The United Kingdom’s *Sustainable Development Indicators in Your Pocket* published between 2004 –2009 clearly serves this purpose. The 2009 publication lists 68 ‘pocket’ indicators that demonstrate progress away from or towards key target using a series of traffic lights.

On first reading sustainability indicators appear to provide a level of clarity and certainty. If progress to or away from sustainability can be quantified and then monitored and known then appropriate actions can be taken. The problem of sustainability is, therefore, constructed as a problem of lack of information. What counts as ‘information’ however depends on an understanding of sustainability that is fixed and measurable. The focus on measurement results in sustainability being defined ‘by the parameters that can only be measured rather than the other way around (Bell and Morse 2008, p. xvii) which led Bell and Morse to pose the question: are sustainability indicators measuring the immeasurable?
The ‘success’ of sustainability indicators, reflected in their rapid uptake by researchers and decision makers all over the globe, can at least partially be explained by their ability to stabilize and simplify what is a highly contested and complex concept. However as Mumby has observed:

…efforts to fix meaning are always political and always ultimately doomed to failure, given the “surplus of meaning” that always characterizes hegemony-at-work. But it is important that we understand these efforts and thus develop a sense of how we, as members of particular social formations, are more readily able to accept some “realities” than others and sometimes become imprisoned by these realities (Mumby 1993, p. 7).

Efforts to fix the meaning of sustainability leads to the exclusion of variables that are not so readily measurable and easily translated into policy options. What is included and what is excluded becomes a matter of expediency or of availability of data rather than a measurement of what could or should represent ‘sustainability’. At what scale these measures are devised and the way in which they drive implementation is also a subject of debate. For some commentators more attention needs to be focussed on ‘real world’ situations, or the process of implementing sustainable development policies at the ‘local’ level rather than taking a global view (Baker, Kousis, Richardson and Young, 1997; Redclift, and Sage 1994, p. 1). As Redclift asserts:

We cannot begin to ‘manage’ the environment successfully at the global level without first achieving progress towards sustainability at the local level. This we have signally failed to do, and yet we are seeking to construct an apparatus to deal with specifically ‘global’ problems, through institutions like the Global Environment Facility. We are, in effect, inventing new institutional structures for managing the environment, which bear little or no relation to the processes through which the environment is transformed. There is little correspondence between the processes that drive unsustainable development, and the management tools and political institutions which are supposed to achieve greater global sustainability (Redclift 1999, p. 1).

One particularly popular and widely used framework for the development of indicators that attempts to bridge this gap between the local and global is Ecological Footprints. The technique communicates at a variety of scales – from individual households, to regions, to nations and the entire globe by focussing in particular on individual consumption.
2.2.2 Ecological Footprints

An ecological footprint is described as the area of ecologically productive land and water that is required to provide all of the energy/material resources and to absorb all of the waste discharged by a given human population, using prevailing technology wherever on Earth that land is located. It is calculated using data on consumption rates of various resources and these are considered in relation to the area of land required to produce these resources. Wackernagel and Rees argue that ‘the ecological locations of human settlements no longer coincide with their geographic locations’ (Wackernagel and Rees 1996, p. 29) because cities, in particular, rely on a vast and increasingly global hinterland to provide energy and materials for consumption. Conventional approaches to development based on expanding economic growth have failed to level income differences, increase happiness or provide the basic needs for the world’s poorest people (Wackernagel and Rees 1996, p. 1). Accelerating resource consumption has also led to the world becoming ecologically overloaded. This is because of ‘our’ separation from nature - ‘a simple insight’ which, the authors argue, is often overlooked. Sustainability, therefore requires ‘...that our emphasis shift from ‘managing resources’ to managing ourselves’ (Wackernagel and Rees 1996, p. 4). Ecological footprints is a tool to assess humanity’s dependence on ‘nature’ and to assist in assessing choices about the demands we place on it:

A world upon which everyone imposed an over-sized Ecological Footprint would not be sustainable - the Ecological Footprint of humanity as a whole must be smaller than the ecologically productive portion of the planet’s surface. This means that if every region or country were to emulate the economic example of the Lower Fraser Basin or the Netherlands, using existing technology, we would all be at risk from global ecological collapse (Wackernagel and Rees 1996, pp. 15-16).

By living the way ‘we’ do ‘as if there were no biological limits to nature’, undermines not only ‘global life support’ but also threatens ‘geopolitical stability’ (Wackernagel and Rees 1996, p. 35). ‘We’ therefore need to work towards what they call fair Earthshare:

A fair Earthshare is the amount of land each person would get if all the ecologically productive land on Earth were divided evenly among the present world population. If your present Earthshare were a circular island it would have a diameter of just 138 metres. One sixth of your island would be arable land, the rest pasture, forest and wilderness, and built-up area. Clearly as the population increases, our earthshares shrink (Wackernagel and Rees, 1996, p.53).
In order to move towards more sustainable societies Rees and Wackernagel adopt a sometimes punitive approach towards the redesign of cities. They propose amongst other measures:

- phasing out the routine provision of physical and institutional infrastructure that imposes a resource intensive lifestyle on generations to come;
- planning for high density;
- high-amenity downtown restoration;
- promoting the use of renewable energy in commercial and housing developments;
- reallocating urban space, particularly road and other auto-orientated areas, to low-cost housing and public open space;
- imposing disincentives on auto use while creating incentives to encourage public transit, walking and bicycling;
- using the tax system - rewards and penalties - to encourage urban development, urban land trusts, co-operative housing, etc

All of these measures appear simple and a matter of commonsense given the overriding focus on biophysical limits, while at the same time reiterating similar proposals to those that pervade sustainable city discourse (see Chapter 6). The outcome of an ecological footprint analysis can therefore be easily translated into policy outcomes that can be applied at any scale and in any place. But ultimately it is up to every one of ‘us’. ‘We’ can reduce our Ecological Footprint or fair Earthshare by making informed lifestyle decisions. These decisions, the authors argue, are not particularly related to socio-economic variables. ‘We’, individually, can simply choose to reduce our consumption which in turn reduces ‘our’ Ecological Footprint; a position that takes no account of differences in terms of access to resources in the first place – it is all a matter of individual choice. Reducing our ecological footprint is therefore conflated with social outcomes. Social equity is defined as ‘...freeing up the ecological space needed for further growth in developing countries and ensuring that the benefits flow where they are most needed’ Wackernagel and Rees 1996, p.32), a someone naive premise that if resource consumption is reduced in developed countries these resources will be available for less developed countries to assist in their development. Presumably they mean ‘development’ modeled on the hoped for reduction in resource consumption in the developed world. The mechanism for achieving this is through strengthening ‘...the case for international agreements on how to share the global commons and the Earth’s productive capacity more equitably and how to use it more carefully’ Wackernagel and Rees 1996, p.57).
The outcome of an ecological footprint analysis therefore leaves little room for any discussion about values, about meaning or of definitions. Reducing consumption is the order of the day and because of its simplicity and its simple message there has been a proliferation of on-line ecological footprint calculators all of which ask how much land does it take to support your lifestyle? Detailed national figures are published yearly in ecological footprint Atlases (see for instance Ewing, Moore, Goldfinger, Oursler, Reed, and Wackernagel. 2010).

As I argued earlier sustainability Indicators, including Ecological Footprints, are well suited to policy development because they not only simply a highly complex range of substantive issues and concerns into a series of measures and targets they can also be easily translated into policy frameworks ready for implementation and evaluation. However, as with all public policy the area is also fraught with debate and contestation. Sustainability indicators have been criticised for being not only instrumental but reductive. Embedded in their use is the assumption that given the right kind of objective knowledge or data then the passage from problem definition to policy prescription is unproblematic. However, as many commentators point out it is not as simple as this. Bell and Morse for instance pose the following unanswered questions:

…how was the original development of SIs conceived? Why do serious-minded communities of decision-makers and theorists still believe sustainability can be measured in an objective sense? What were the epistemological assumptions that led to this view and are these views still determining policy? Briefly – what was the background thinking that got us into this mess? Putting it another way, where did the narrative arise that took us in this direction and what alternative narratives, both exoteric and occult, exist to take us in different directions? (Bell and Morse, 2008, p. 205).

For Bell and Morse the future of sustainability indicators should rest in their development at the local level using processes of engagement that privilege subjective rather than objective data, dialogue over

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5 A google search for ecological footprint calculators in 2010 revealed 40, 300 hits. See for instance:  
http://www.powerhousemuseum.com/online/bigfoot/  
http://www.ecologicalfootprint.com/
measurement, and multiple interpretations over singularity. The focus moves away from translating global concerns for local application, or the ‘doing’, towards developing processes that are not only locally relevant, participatory, but also reflective. The development of sustainability indicators should be ‘bottom up’ rather than ‘top down’.

2.3: Top – down or bottom up?

Bottom-up, local sustainability indicators appear at first glance to be more ‘authentic’ and more applicable in the sphere of ‘everyday’ life than more ‘top-down’ approaches developed at the international and national levels. Their development also reflects, ‘… the spirit of Local Agenda 21 that puts local involvement at the front of any planning process and challenges policy makers to allow local communities to define sustainability for themselves’ (Reed, Fraser and Dougill 2006, p. 406). But how ‘bottom-up’ are ‘bottom-up’ approaches?

The most often cited, but one amongst many, local, community based projects is the Sustainable Seattle indicator process where it is claimed that local community rather than government or institutions developed a set of indicators to reflect their aspirations for their area. Indicators included wild salmon runs through local streams (Lawrence 1998, p. 79; Sustainable Seattle 1998), which has become somewhat of a leitmotif for the initiative. This is one of 40 sustainability indicators identified by community members that are grouped into the following categories: environment, population and resources, economy, youth and education and health and community (Sustainable Seattle 1998). The strength of approaches like these is that they are:

…rooted in an understanding of local context and are derived by systematically understanding local perceptions of the environment and society. This not only provides a good source of indicators, but also offers the opportunity to enhance community capacity for learning and understanding (Reed, Fraser and Dougill 2006, p. 407).

But is this simply wishful thinking? In a case study of local sustainability indicators in Norwich City Council in the UK in the 1990’s Bell and Morse point out that despite the ‘local’ nature of the initiative, participation by the ‘lay’ public involved representatives of specific groups of leaders in the community. On the basis of this case study they conclude:
Unfortunately ‘participation’ is often employed as a catch-all term for the legitimization of a set of decisions and actions imposed in a top-down fashion by managers. At its worst, ‘participation’ may be no more than a ‘nodding committee’ comprising a carefully selected group of individuals (Bell and Morse 2008, p. 84).

In and of themselves ‘bottom-up’ local sustainability indicators may, or may not be all that different from ‘top-down’ indicators developed at the global or national level. As Bell and Morse suggest simply calling for more ‘local’ involvement does not necessarily mean that all ‘local’ interests are heard if the terms of the debate are not open for discussion in the first place (Bell and Morse, 2008). ‘Local knowledge’ does not simply reflect ‘what is’, nor does it necessarily represent a site of ‘agreement’ that sits in opposition to the global or expert systems. Within any one group or community there may be multiple and conflicting knowledges, and those knowledges draw on and are influenced by other global discourses and practices. There may, in effect be no ‘authentic’ local understandings but rather multiple discourses and practices (Cameron and Gibson 2005, p. 318). Moreover, as Macnaghten and Urry (1999, p. 231-232) point out sustainability indicators may not necessarily be seen as relevant at the local level (Macnaghten and Urry 1999, p. 231-232)

The ‘usefulness’ of locally devised sustainability indicators has also been questioned by Reed, Fraser and Dougill as follows:

Reed, Fraser and Dougills’ anxiety that ‘local’ knowledge will be privileged at the expense of central government prescriptions leads them to argue for inclusion of both local and expert knowledge(s) in sustainability indicator development, a position that overlooks not only questions of power at the local level but also the main role that sustainability indicators play as communication tools. As the earlier
discussion emphasised sustainability indicators, including ecological footprints, are developed to communicate a particular message about progress towards or away from sustainability and the target audience is not only decision makers, policy makers but also the lay public. I explore these questions further in Chapter 10, however, the point needs to be emphasised here that the dichotomy between the local and the global is perhaps a false one. As Cvetkovich and Kellner have reminded us:

Dichotomies, such as those between the global and the local, express contradictions and tensions between crucial constitutive forces of the present moment; consequently, it is a mistake to overlook focus on one side in favour of exclusive concern with the other (rejecting the local and particularity, for instance, in favour of exclusive concern with the global, or rejecting the global and all macrostructures for exclusive concern with the local). Our challenge is to think through the relationship between the global and the local by observing how global forces influence and even structure ever more local situations and ever more strikingly. One should also see how local forces and situations mediate the global, inflecting global forces to diverse ends and conditions and producing unique configurations for thought and action in the contemporary world (Cvetkovich and Kellner 1997, p. 1).

For these authors the ‘local’ does not sit in isolation from global prescriptions as a separate, more organic, more authentic, embedded sphere. The key question then becomes not the level at which sustainability indicators are developed but rather why sustainability is understood as being measurable in the first place and why measurement represents a necessary first step before implementation.

Sachs, makes this point quite forcibly when he argues that:

Satellite pictures scanning the globe’s vegetative cover, computer graphs running interactive curves through time, threshold levels held up as worldwide norms are the language of global ecology. It constructs a reality that contains mountains of data, but no people...In short they provide a knowledge which is faceless and placeless; an abstraction that carries a considerable cost: it consigns the realities of culture, power and virtue to oblivion. It offers data, but no context; it shows diagrams, but no actors; it gives calculations, but no notion of morality; it seeks stability, but disregards beauty. Indeed the global vantage point requires ironing out all the differences and disregarding all circumstances...After all, has there ever, in the history of colonialism, been a more powerful motive for streamlining the world than the call to save the planet? (Sachs 1992, p. 19).

Sachs takes issue with the ‘global’ perspective, which he argues irons out qualitative differences in efforts to streamline the world. The global view, in Sachs estimation, has transformed environmentalism to managerialism but with nothing less than an entire planet to manage (Sachs 1992, p. 11). Sachs, therefore argued for a focus on the language used by ‘the rising breed of environmental professionals’ (Sachs 1992, p. xvi) who employ measurement, monitoring and mapping as a way of controlling not
only the entire planet but the people who inhabit it as well. Sachs argument has been reiterated, more recently, by Luke who argues that:

…eco-knowledge of nature is tenuous. By what rules can the environment be somehow gauged as normal or at least subjected to normalizing criteria that will reveal year-in, year-out predictable levels of rain, soil creation, timber growth, fish population, agricultural output or human settlement. Once these factors have been identified and tracked, ecological monitors may watch such variables, and maybe manage the global ecosystem. But other scientific analyses indicate that there may be incredible variations in all these ecological factors from year to year or decade by decade. Nature may well be far more chaotic, much less predictable, and not as normal as many scientists hitherto have believed. As a result, technocratic efforts to capture its energies as geo-power in normalizing models, which artlessly assume levels of docile predictability and stable replicability in ecological dynamics, may reduce any Strategic Environmental Initiative to administer nature to complete meaninglessness (Luke 1999, p. 141).

For Luke sustainable development policies and strategies based on monitoring and measurement may well lead to outcomes in some sectors and at a few sites but he questioned whether the outcome may be in fact to empower a new group of experts ‘following doctrines of engagement’ to intervene in local communities and culture (Luke, 1999, p. 141).

What Sachs and Luke are concerned about is the effects of a particular way of talking and writing about sustainability that has gained dominance over others, and how as a result other interests or other ways of constructing the environment and the future have been marginalised. Luke and Sachs work therefore sits within the third key approach to sustainability identified at the beginning of this chapter. These authors are concerned much more with the on-the-ground effects of discourses about sustainability rather than establishing what it could or should mean in practice. The overriding focus is on the questions - sustainability of what and for whom. These concerns are addressed further and in greater detail in the next chapter.

2.4 Conclusion

In this chapter I have argued that the breadth and ambiguity of the concept, sustainability, along with its potential for multiple interpretations raises particular dilemmas for researchers and practitioners. Three key approaches to sustainability research and practice were identified. The first is concerned with
definitions of sustainability – what it is and what it should mean in practice. Distinctions have been made between strong and weak versions of sustainability, or anthropocentric and ecocentric approaches in attempts to grapple with the diversity of definitions. Other researchers attempt to grasp the breadth of concerns that fall under the sustainability banner diagrammatically and consider the implications in terms of policy. The lack of integration between the social, ecological and economic dimensions of sustainability is a key issue of concern. However, other researchers worried about the dominance of ‘natural’ scientific methods have suggested that attempts at integration has led to an instrumental approach to social sustainability. For these authors a broadening of the discussions to include questions of values and of meaning is a necessary first step to move beyond what currently is to what could be in the future.

The second key approach discussed is much more concerned with implementation with researchers focussing their efforts on developing tools and techniques to measure ‘progress’ towards or away from sustainability in a way that is relevant and easily translatable for policy makers. The discussion here focussed on two examples: sustainability indicators and ecological footprints to demonstrate ways in which researchers and practitioners have attempted to provide a framework for implementation. What becomes clear however is that both ecological footprints and sustainability indicators are communicative devices directed towards behavioural change rather than objective measurements of sustainability. Data is understood as providing objective ‘facts’ that are scientifically rigorous which then needs to be translated and simplified to make it understandable for decision makers and the public. What is included and what is excluded becomes a matter of expediency or of availability of data rather than a measurement of what could or should represent ‘sustainability’. Debate around sustainability indicators also tends to focus on what level indicators should be operationalized – at the local or the global scale. However, I have argued that it is not the level at which sustainability indicators are developed and implemented but rather that sustainability is understood as being measurable in the first place that is of concern.

The final approach that I introduced briefly considers sustainability as a discourse. Authors adopting this approach are much more concerned with the effects of discourses about sustainability rather than
establishing what it could or should mean in practice. The overriding focus is on the questions - sustainability of what and for whom. In chapter 3, I discuss this third research approach in more detail before providing a rationale for why I have adopted this perspective in this thesis.
Environmental Discourse: Towards a Research Approach

3.0: Introduction

In the previous Chapter I discussed three key approaches to sustainability research arguing that attempts to fix the meaning of sustainability either through clarifying the way in which it is defined, or through attempts to measure progress using indicators are based on a range of assumptions about what the term could or should mean. I argued that it is not the level at which sustainability indicators are developed and implemented but rather that sustainability is understood as being measurable in the first place that is of concern. The third key approach that was examined briefly resists the temptation to define sustainability once and for all and focuses instead on sustainability as a discourse that sits within the broader field of environmental discourse. To understand sustainability as discourse suggests that it has no fixed meaning, but is instead dynamic and open to change. Definition and re-definition ‘…becomes part of the process of enriching and renewing the concept’ (Myerson and Rydin, 2004, p. 99). This focus shifts discussion away from considering the usefulness of sustainability as a conceptual framework and whether it can deliver ‘successful’ outcomes and also away from more reductive approaches that focus on implementation towards an approach that remains alert to the contestation, the contradictions, the open-ended-ness and the multiplicity that currently characterize discussions about sustainability and environment, without necessarily privileging any one perspective over another. Attention also shifts away from the urgency associated with implementation towards an understanding of how and why particular ways of framing sustainability and the environment come to dominate over others and with what effects.

This chapter is concerned with exploring this research approach and explains why I have adopted it in this thesis. I consider broad questions like - what is discourse and what is discourse analysis, before turning to a focus on the applicability of discourse analysis to environmental and sustainability discourse. I then
outline the specific approach adopted in this thesis. Discourse analysis involves a number of things. Firstly it involves a particular stance towards research and the role of research in the generation of knowledge. The role and the position of the researcher needs to be made explicit from the outset, because discourse analysis is not concerned with discovering objective facts as a way of solving ‘problems’ or of moving forward, but rather attempts to consider what the effects of a particular way of talking and writing are, as a way of revealing the possibilities of not thinking, talking and acting in those ways (see section 3.1). From this perspective any given meaning is not fixed nor self-evident but actively produced and negotiated through discourse. The second key consideration is that discourse analysis requires a particular perspective on data - what it is data and how it is analyzed. Rather than seek out explanations of what ‘is’, discourse analysis treats discourse itself as something worthy of analysis. How discourse is understood, therefore, needs to be stated from the outset.

3.1 What is Discourse?

It is not enough to utilize the term 'discourse' without an explanation of how it is used. As Simon During has pointed out, ‘discourse’ is in danger of losing its explanatory and exploratory power:

Writers routinely find their vocabulary mysteriously impoverished. The same words appear on the page again and again, all alternatives lost or weakened. And in the last twenty years or so, no word has been repeated more often and more helplessly by academics and students than ‘discourse’ (During 1995, p. 43).

Nevertheless, During went on to observe that the word and concept have become ‘vitaly important’ to social, cultural and historical analysis.

According to Dryzek 2005,

A discourse is a shared way of apprehending the world. Embedded in language, it enables those who subscribe to it to interpret bits of information and put them together into coherent stories and accounts. Discourses construct meanings and relationships, helping to define common sense and legitimate knowledge. Each discourse rests on assumptions, judgments, and contentions that provide the basic terms of analysis, debates, agreement and disagreements. If such shared terms did not exist, it would be hard to imagine problem-solving (Dryzek 2005, p.9).
A discourse is therefore not a text or mode of communication, it is a social practice. Understood as such involves a ‘...shift from the usual focus of interest in the phenomena to which the discourse refers to a focus on the discourse itself’ (Wood and Kroger 2000, p. 8). The aim of discourse analysis is therefore not to seek the ‘truth’ or ‘reality’, or singular explanations of what is or could be but rather to remain alert to the multiplicity embedded in discourses and to consider the way in which particular ways of framing enable and limit what can be spoken and written about. Understood as social practice, discourses therefore shape understandings, influencing what is considered both legitimate and illegitimate knowledge(s) but also what is considered to be a problem. A discourse is therefore not synonymous with discussion. As Sharpe and Richardson (2001, p. 195) have noted:

>a discourse is not a communicative exchange, but a complex entity that extends into the realms of ideology, strategy, language and practice, and is shaped by the relations between power and knowledge.

Discourse analysis therefore ‘... involves a way of thinking about discourse (theoretical and metatheoretical elements) and ways of treating discourse as data (methodological elements)’ (Wood and Kroger 2000, p. 3).

There are, however, many versions of discourse analysis as a result of what Wood and Kroger refer to as ‘the turn to discourse’. This turn to discourse has had a major impact on the practice of the social sciences particularly since the 1980’s leading to the breaking down the barriers between various social scientific fields (Wood and Kroger 2000, p. x). Discourse analysis as a field of endeavor has emerged in disciplines as diverse as communications, social psychology, linguistics, sociology, anthropology, philosophy, literature, and political science. Interest in environmentalism and environmental discourse\(^6\) (within which sustainability discourse sits) has followed a similar trajectory emerging in the early 1990’s within a range of different disciplines, including Environmental Policy (Darier, 1996, 1999; Hajer 1995, 1996, 2006; Hajer and Versteeg 2005; Hajer and Laws 2006), Anthropology (Milton, 1996; Muhlhausler and Peace, 2006), Sociology (Hannigan 2006; Macnaghten and Urry 1998; Taylor and Buttell 1992), Politics (Dryzek, 1997, 2005; Fischer and Black 1995; Luke, 1999, 2005; Litfin, 1994; Oels 2005; Rutherford, 1999), Literature (Quigley 1999), Cultural Studies (Ross 1991, 1995; Sandilands 1996, 1996),

\(^6\) For an overview see the special edition of *Journal of Environmental Policy and Planning*, Volume 7 Issue 3 2005
1999), Geography (Rydin 2003; Whittaker and Mercer 2004), and Linguistics (Killingsworth and Palmer 1992). Because of this diversity there are also a number of interdisciplinary texts, drawing together disciplines as diverse as Linguistics and Geography (Myerson and Rydin 2004), and Linguistics, Psychology and Philosophy (Harre, Brockmeier and Muhlhausler 1999). In the following I provide a brief overview of these broad approaches to environmental discourse before turning to a discussion of the methodology employed in this thesis.

3.2 Environmental Discourse

According to Muhlhausler and Peace, ‘Environmental discourse concerns the relationship between language and the world’ (2006, p. 467). Within this broad field the focus of research differs depending on research intent. What is shared in common is the questioning of more ‘realist’ accounts of environmentalism where the environment is understood as ‘…essentially a ‘real entity’, which, in and of itself and substantially separate from social practices and human experience, has the power to produce unambiguous, observable and rectifiable outcomes’ (Macnaghten and Urry 1998, p. 1). For commentators working in this field the way in which environment and sustainability is constructed as something that can be measured and monitored is not value free, nor is it objective as Litfin found in her study of Ozone Discourses. In her study:

It became increasingly evident that “knowledge” was not simply a body of concrete and objective facts but that accepted knowledge was deeply implicated in questions of framing and interpretation and that these related to perceived interests. Although the range of uncertainty was narrow, atmospheric science did not provide a body of objective and value-free facts from which international co-operation emerged. Rather, knowledge was framed in light of specific interests and pre-existing discourses so that questions of value were rendered as questions of fact, with exogenous factors shaping the political salience of various modes of interpreting that knowledge (Litfin 1994, p. 6).

What all of these commentators are concerned with are questions around language, knowledge and power. The aim of environmental discourse analysis is therefore to consider how different understandings of what constitutes ‘environment’ and an environmental ‘problem’ emerge, because ‘…discourses shape what can and cannot be thought, delimit the range of policy options and thereby serve as precursors to policy outcomes’ (Hajer and Versteeg 2005, p. 178). This is not to argue, and none
of the authors cited above would argue, that environmental phenomenon does not exists or that environmental concerns are not ‘real’ but rather the concern is with how one makes sense of that phenomenon and how this sense-making is discursively produced. It is to consider how particular ideas about ‘truth’ and ‘reality’ are produced and reinforced in discourse. The focus is, therefore, on language-in-use which, according to Hajer and Versteeg is well suited to the study of environmental policy and politics because:

Concepts such as sustainable development or the precautionary principle, are not and cannot simply be imposed in a top-down way, but are continuously contested in a struggle about their meaning, interpretation and implementation. In trying to make sense of this struggle, discourse analysis has three particular strengths; the capacity to reveal the role of language in politics, to reveal the embeddedness of language in practice and to illuminate mechanisms and answer ‘how questions’ (Hajer and Versteeg 2005, p. 176).

Discourses about environmental phenomenon are therefore not simply descriptive but persuasive as well, invoking the need to act. And one could add they are inherently moralistic, normative, value laden and political.

The focus in much of the research in this field is often on making sense of the multiple and conflicting discourses about the environment that have emerged particularly since the 1970’s. Within this context sustainable development is but one of many competing discourses (Dryzek 2005). One common approach focuses on environmental rhetoric as a way of making sense of the diversity as a way of enriching the discursive resources available to speak and write about the environment. A key text here is Myerson and Rydin’s The Language of Environmentalism. For these authors:

…the hope of rhetoric is to understand the dynamic and creative processes of argument in a potentially democratic society. It searches for plurality in the communication of that society and it accepts difference and contradiction…it offers a mode of thinking that can foster creativity in argument, in making and reading argument and thereby maintaining a commitment to questioning the dominant, accepted orthodoxies (Myerson and Rydin 1996, pp. 33-34).

For Myerson and Rydin the aim of discourse analysis should be to identify the plurality of arguments in environmental discourse as a way of renewing and enriching the concepts used to frame debate. For these authors discourse analysis is generative, opening up possibilities for arguing differently and resisting dominant ways of framing the environmental problematic and the future. Environmental language, or as
they prefer *environet*, is fluid, based on rhetoric, on arguments that drive knowledge. Consequently texts and words are generative:

In the environet, texts always interact with each other, indirectly because they address issues together, they use the same words, they address similar audiences, they respond to similar feelings, they use the same arguments, or opposing arguments...The effect of these repeated connections is cumulative, building up support for different viewpoints and pushing certain issues into more prominent positions in the environmental agenda. As arguments accumulate across the environet, the agendas reform. Therefore, any single text has broader impacts that are felt by its readers; each contributes to the aggregate impacts of environmental texts on the culture as a whole (Myerson and Rydin 2004, 10).

As the same ideas, words or meanings are used repeatedly the boundaries around a particular discourse become increasingly clear, but never finalized. Environmental discourse is, for Myerson and Rydin instead, in a constant state of flux and change. Discourses are invented and reinvented to manage the controversies that arise from different points of view. In their reading argument is ‘active’ and not conditioned by ‘discourses or accepted hierarchies’ (Myerson and Rydin 2004, p. 22)’ it is central to democracy itself’ (Myerson and Rydin 2004, p. p. 27).

Another key text in the field of rhetoric is Killingsworth and Palmer’s *Ecospeak* (1992), a text that aimed to ‘...delineate the pattern of rhetoric typically used in written discourse on environmental politics’ (Killingsworth and Palmer 1992, p. 1). The authors note the inadequacy of environmental rhetoric to ‘...create strong communicative links with the mass public, links that would support a strong power base for reformative action’ (Killingsworth and Palmer 1992, p. 7). Mapping the diversity of positions on environment is, for these authors, a way of avoiding oversimplification of environmental conflicts into dichotomous positions. Killingsworth and Palmer’s aim to provide a map of environmental discourses as a ‘set of hints towards an improved language of public discourse (Killingsworth and Palmer 1992, p. 2), is an aim also shared by the authors of another key text – *Greenspeak* (Harre, Brockmeier an Muhlhausler 1999). Of central concern for these authors is the way in which ‘greenspeak’ has been appropriated and manipulated by big business and government with the result that:

We perceive, in the increasing greening of English and other Western languages, a kind of linguistic *Ersatzhandlung*, with the very real danger of talk replacing or postponing action (Harre, Brockmeier and Muhlhausler 1999, p. ix).
It is therefore, according to these authors, ‘...advisable to give centre stage to the study of environmentalists speaking and writing, that is to mapping and interpreting the many dialects of Greenspeak’ (Harre, Brockmeier and Muhlhausler 1999, p. 4-5). The aim of analysis for these authors is to gain a better understanding of how to engage in environmental discourse and facilitate change (Harre, Brockmeier and Muhlhausler 1999, p.28). Similarly, Bruner and Oelschlaeger (1994) emphasize the relative lack of consequential change in environmental discourses compared with anti-environmentalists who, they argue, ‘have been effective in accomplishing their objectives at least in part, because of their ability to articulate persuasive rationales through slogans, myths and narratives’ (Bruner and Oelschlaeger 1994, p. 379). For these authors rhetoric offers resources to environmentalists that would increase the potential to effect social change.7

Other commentators attempt to develop discursive typologies of environmentalism as a way of explaining the diversity of environmental talking and writing.8 Dryzek (2005), for instance, identifies four discourses: survivalism, problem-solving, sustainability and green radicalism all of which offer a ‘reasonably comprehensive account of and orientation to environmental affairs at all levels, from the global to the local, and across different issue areas’ (Dryzek 2005, p. 232). These discourses are then classified along two dimensions prosaic versus imaginative and reformist versus radical. These dimensions relate to the level of change required. Sustainability is understood as imaginative but reformist, while survivalism is prosaic but radical. Understanding these dimensions are important, according to Dryzek, because they can point the way to a more radical democracy; ecological democracy based on social learning through discursive designs.

Discursive designs involve collective decision making through authentic democratic discussion, open to all interests, under which political power, money and strategizing do not determine outcomes (Dryzek 2005, p. 233).

Dryzek’s position, along with that of Myerson and Rydin and Killingsworth and Palmer, reflects a particular perspective of social change and the role of discourse analysis in facilitating that change.

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8 Other attempts to develop typologies of environmental discourse include Hemdl and Brown (1996) and Brulle (2000)
Within this body of work, informed largely by Habermas\(^9\), discourse is understood as deliberation and the aim is to consider the rules of engagement, and, in the environmental field, how discussion and deliberation can be extended to include not only other people, but also non human nature (see for instance, Eckesley 1992). Researchers working in this tradition argue that it is important to analyze text and talk because it is through communication that social change takes place and that ‘changes at the social level can be constituted in part through changes in linguistic practices’ (Hastings, 1999, p. 93 cited in Sharpe and Richardson 2001, p. 196). The approach has been criticised by other discourse analysts because:

> the achievement of good communication between parties is privileged as the normatively important end, over and above the achievement of substantive policy goals. According to these approaches, when good communication is achieved all parties are able to affect the direction of social change (Sharpe and Richardson 2001, p. 196).

Elsewhere, Richardson describes the approach as ‘being marked by power-blindness’ (Richardson 1996, p. 279). Sharpe and Richardson’s work fits within an alternative tradition informed in particular by the work of Foucault. According to these authors:

> The Foucauldian view of discourse is based on a different model of social change that different systems of meaning or discourses compete for influence in society and, consequently, that structural changes in society can be conceptualized as shifts in the relative influence of different discourses. It follows that these wider discursive struggles condition what happens in specific policy-making processes (Sharpe and Richardson 2001, p. 196).

Rather than privileging agency and ‘good communication’, commentators working in this tradition consider the way in which particular understandings come to dominate discussions and with what effects. According to Hajer and Versteeg:

> The real contribution of this approach is not to be found in prescriptive force, but in the ability to trace the discursive power struggle underlying environmental politics (Hajer and Versteeg 2005, p. 181).

Attention shifts away from the development of processes to include more people into a discourse towards a research agenda that focuses on the how questions. As Sharpe and Richardson explain:

\(^9\) For a broad overview of this debate see Richardson, T. 1996 ‘Foucauldian discourse: Power and truth in Urban and regional policy making’, European Planning Studies, 4: 3, 279 — 292
Rather than asking about the truth of an argument, Foucault’s approach suggests that we should ask how, why and by whom truth is attributed to particular arguments and not to others. This insight is of particular relevance to the understanding of the policy process as being shaped by the relations between power and rationality. It also helps us to understand why Foucault is not condemning rationality outright, but simply saying that rational and/or irrational arguments may be appropriated as 'truth' through the exercise of power (Sharpe and Richardson 2001, p. 197).

Dyzek, for his part, carefully distinguishes his approach to discourse analysis from other work informed by a Foucauldian perspective. He argues that:

Foucauldians are generally committed to the idea that individuals are for the most part subject to the discourses in which they move, and so are seldom able to step back and make comparative assessments and choices across different discourses. It should be evident that I disagree. Discourses are powerful, but they are not impenetrable (Dryzek 2005, p. 22).

Dryzek is here raising a number of important methodological questions particularly in terms of how discourses can be ‘penetrated’ and also around research intent. While a Habermasian approach aims to develop processes for deliberation and discussion that are inclusive, rational and democratic, Foucauldian approaches to discourse analysis generate limited policy recommendations and are much more concerned with the effects of discourse. What both approaches to discourse analysis share in common is that they stress, ‘the importance and the complexity of communication in achieving social change’, along with a common concern to expose ‘inequalities of power as a means for achieving social change’ (Sharpe and Richardson 2001, p. 196). How they differ is the way in which they engage with and consider questions of social change and of power. As Feindt, and Oels, (2005, p. 163) point out:

The Foucaultian understanding of discourse implies a conception of power as constitutive and productive and not limited to repressive effects. Power is understood as a web of force relations made up of local centres of power around which specific discourses, strategies of power and techniques for the appropriation of knowledge cluster.

For scholars working in this tradition, knowledge is power. Power is not invested in particular individuals or institutions, nor is it something that can be simply ‘passed on’ to others. Instead power circulates through the social body, constraining but also enabling speaking, writing and thinking. From this perspective, arguing for the inclusion of other marginalized voices into discussions may not
necessarily then lead to a more inclusive and democratic discourse nor will it necessarily lead to social change, without an examination of the terms of the debate. As Darier puts it:

...the challenge to environmental activism is not to establish a binding ‘ecological rationality’ (Dryzek 1990), with even more powerful instruments of control and management, but to acknowledge human freedom (Darier 1999, p. 238).

It is this perspective on power and social change that I have taken up in this thesis and so the next section looks much more closely at questions of discourse and power, before moving to an explanation of the specific approach adopted in this thesis.

3.3 Discourse, Knowledge and Power

Power for Foucault is not something that is possessed and wielded by the more powerful over others. Power is everywhere; it is embedded in discourse. It is transmitted through the social body where is it reinforced and extended, even while it is resisted. It is central to the way in which we understand ourselves as subjects:

This power is exercised rather than possessed; it is not the ‘privilege’, acquired or preserved, of the dominant class, but the overall effects of its strategic positions – an effect that is manifested and sometimes extended by the position of those who are dominated. Furthermore, this power is not exercised simply as an obligation or a prohibition or a prohibition on those who ‘do not have it’; it invests them, is transmitted by them and through them, just as they themselves, in their struggle against it, resist the grip it has on them (Foucault 1979, 26-27).

Power is, therefore, not simply about repression, nor can it be resisted by revealing who wields power and who doesn’t. Power is not that ‘easily’ overcome:

In defining the effects of power as repression, one adopts a purely juridical conception of such power; one identifies power with a law which says no; power is taken above all as carrying the force of a prohibition. Now I believe that this is a wholly negative, narrow, skeletal conception of power, one which has been curiously widespread. If power were never anything but repressive, if it never did anything but say no, do you really think one would be brought to obey it? What makes power hold good, what makes it accepted, is simply the fact that it doesn’t only weigh on us as a force that says no, but that it traverses and produces things, it induces pleasure, forms knowledge, produces discourse (Foucault 1986b, 60-61).

A discourse, according to Foucault, is therefore not simply a discussion or an exchange of some kind, but a way of speaking about a thing that has legitimating power, naming power. In any given historical period
he argued we can write, speak, or think about a given social object or practice (madness, for example) only in certain specific ways and not others (McHoul & Grace, 1993, p. 31). In *The Order of Things* (1966) Foucault demonstrated how diverse sets of discursive practices are ordered according to underlying codes and rules that change radically through time, and govern what can be thought and said at any one time and place. He identifies four periods of discursive coherence from the sixteenth century until ‘today’ Renaissance, Classical, Modern and Postmodern and all of these periods he terms ‘epistemes’. An episteme constitutes the very ground on which it is possible to distinguish between true and false, they define the rules that make knowledge, or knowing and thinking possible. They are incomparable because the rules that make possible how we can think are specific to a particular episteme.

Foucault described his research approach as consisting of a critique of what we are saying, thinking and doing, through a historical ontology of ourselves. This critique does not involve a search for ‘formal structures and universal value, but rather a historical investigation into the events that have led us to constitute ourselves and to recognise ourselves as subjects of what we are doing, thinking and saying’ (Foucault 1986c, 46). In other words, the purpose of critique is to reveal how it is we can think, speak and act in a particular way and not in others to open up the possibility of thinking differently:

> The critical ontology of ourselves has to be considered not, certainly, as a theory, a doctrine, nor even a permanent body of knowledge that is accumulating; it is to be conceived as an attitude, an ethos, a philosophical life in which the critique of what we are is at one and the same time the historical analysis of the limits that are imposed on us and an experiment with the possibility of going beyond them (Foucault 1986c, p. 50).

He is therefore not concerned with questions of how and by what means but more specifically with the way in which particular claims to knowledge are constructed and deployed and with what effects. What Foucault meant by critique is important here – critique is used not to negate or replace, not even to ask how to do things differently – but to reveal or unmask - a ‘constant checking’ (Foucault, 1983, p. 209).

In *Discipline and Punish* Foucault identifies ‘Two ways of exercising power over men, of controlling their relations, of separating out their dangerous mixtures’ (Foucault 1979, p. 198). The first is symbolized by the leper and is based on ‘binary branding’ – separation, exclusion and marginalization based on a binary system – clean/dirty, healthy/sick, normal/abnormal, right/wrong and the second is represented by the plague which gave rise to disciplinary mechanisms of individualization, surveillance and control – ways of separating out bodies and controlling them. Both of these ways of exercising power he argues came together in the nineteenth century.
Foucault uses Bentham’s panopticon as a ‘generalised model’ to describe the way in which this power operates in the ‘everyday life of men’ (Foucault 1979 p. 205). The panopticon is a ‘machine’ or ‘architectural apparatus’ that separates individuals and ensures that they are constantly visible and observable by anyone without necessarily being observed. In this way the panopticon ‘assures the automatic functioning of power’ because it allows for surveillance to be permanent in its effect, while discontinuous in its actions (Foucault 1979 p. 201). Foucault points out that, ‘Whenever one is dealing with a multiplicity of individuals on whom a task or a particular form of behaviour must be imposed, the panoptic schema may be used’ (Foucault 1979, p. 205).

Power in the Foucauldian sense is therefore about controlling both individuals and the entire population. As Douglas puts it:

What Foucault sought to explain was what he saw as the central dilemma of modern political rationality: how to mobilise society, making each citizen an essential cog in the general machine, without making each and all more difficult to govern. The way in which he did this was to trace the coming together of a certain mentality of government (or ‘governmentality’) which precisely aimed to make movements regular, though seemingly unrestricted by the intervention of power. For Foucault, this positive moulding marked the advent of ‘an age of biopower’: an investment in bodies, in populations and rhythms; in constituting the parameters within which ‘life’ would become regular (Douglas 2000, p. 116).

The production of knowledge does not exist outside of these networks of power but is instead central to them. According to Foucault:

There are manifold relations of power which permeate, characterize and constitute the social body, and these relations of power cannot themselves be established, consolidated nor implemented without the production, accumulation, circulation and functioning of a discourse. There can be no possible exercise of power without a certain economy of discourses of truth which operates through and on the basis of this association. We are subjected to the production of truth through power and we cannot exercise power except through the production of truth (Foucault 1980 p. 93).

In a series of lectures delivered between 1978 and 1979 Foucault defined and explored what he called ‘government rationality’ or ‘governmentality’. Foucault understood the term government in both the widest and the narrowest sense. He described it as ‘the conduct of conduct’, a form of activity aiming to shape, guide or affect the conduct of some person or persons (Foucault cited in Gordon 1991 p. 2).
Governmentality as an activity is therefore understood as much more than concerns of the state, it is also concerned with the ‘…relations between self and self, private interpersonal relations involving some form of control or guidance, relations within social institutions and communities, and, finally, relations concerned with the exercise of political sovereignty’ (Foucault cited in Gordon, 1991 p. 2-3). Government or governmentality extends well beyond state apparatuses requiring an investigation to ‘move outside the institution and replace it with an overall point of view of the technology of power’ (Foucault cited in Nadesan 2008, p. 10). As Nadesan explains:

…governmentality holds that there is no subjectivity outside of the social; government is not seen as an external force acting upon otherwise free agents. Rather, individuals are constituted as such within and by social relations’ (Nadesan 2008, p. 10).

The question for investigation, following Foucault, then becomes one of how a specific discourse is framed and operationalized not only within the institutions of government but also how it is circulates through and is reinforced in everyday practices, defining what is considered to ‘right’ and ‘appropriate’ behaviors. Foucault’s understanding of governmentality has proved to be a fruitful line of analysis for researchers working within the field of environmental discourse where it has variously been redefined as environmental governmentality (Darier 1996, 1999), green governmentality (Luke 1999) or ecogovernmentality (Goldman 2001).

3.4 Green Governmentality/Eco-Governmentality

In his reading of Foucault, Eric Darier identifies three components that constitute ‘environmental governmentality’. The first is centralisation around government or the state, the second the intensification of the effects of power at the levels of both the entire population and of the individual and the third the emergence of new forms of knowledge useful for the implementation of this centralisation and intensification (Darier, 1996, p. 588). Using Canada’s Green Plan as a case study he demonstrates that ‘…the conceptual framework of governmentality is particularly relevant to environmental policy’ (Darier, 1996, p. 601). He notes the centralisation of government environmental agencies and procedures, the intensification of the effects of environmental policy on each individual through the process of normalisation of individual and collective conducts, where ‘…every single individual becomes
responsible for her or his environmental self control in every social situation’ (Darier, 1996, p. 597) and finally the emergence of new environmental knowledge designed to structure the environmental normalisation process (Darier, 1996, p. 601):

The objective is to make sure that no individual escapes the environmental normalisation process …every single individual becomes responsible for her or his environmental self-control in every social situation...For the Green plan there is no ‘private’ sphere to escape from the new environmental normalisation. The entire population and each individual has to become an environmental subject, an environmental citizen (Darier 1996, p. 587).

Part of this normalisation process involves environmental education and drills like household recycling that function to construct an ’environmental citizenry’ and to discipline bodies. Importantly, the purpose of Darier’s critique of the Green Plan, following Foucault, is not to negate or assess it in terms of ‘success’, but rather to consider it in terms of resisting the effects of power. He argues:

…the theoretical concept of 'governmentality' itself should not be taken as a 'truth' concept but rather should be perceived as a 'toolbox' - as Deleuze calls it - to assist us in constantly resisting naturalising what is the results of power effects (Darier 1996, p. 589).

Alternatively, Luke (1999) coins the term ‘green governmentality’ or simply environmentality to describe a process that involves not only disciplining bodies but includes the administration of the entire planet. He argues that:

Encircled by grids of ecological alarm, sustainability discourse tells us that today’s allegedly unsustainable environments need to be disassembled, recombined and subjected to the disciplinary designs of expert management. Enveloped in such enviro-disciplinary, any environment could be redirected to fulfil the ends of other economic scripts, managerial directives and administrative writs denominated in sustainability values. Sustainability, then, engenders its own form of ‘environmentality’, which would embed alternative instrumental rationalities beyond those of pure market calculations in the policing of ecological spaces (Luke 1999, p. 142).

Environmentalism becomes the means or rationale for policing and regulating the entire human population, and ‘...an enviro-disciplinary ‘steadying state’, designed and enforced by green bureaucrats, will be needed to enforce environmental stable states of dynamic ecological equilibrium’ (Luke 1999, p. 148). The worry for Luke is that environmental policy will ‘...empower a new group of outside experts following doctrines of engagement to intervene in local communities and cultures so that their geo-power
may serve Global Marshall Plans’ and hence serve the interests of ‘…outsiders who want to control how forests, rivers, farms and wildlife are used’ (Luke 1999, pp. 141-142). Luke’s concerns also informs Goldman’s argument that environmental sustainable development has become a technology of government. He coins the term eco-governmentality to describe the process through which transnational organisations like the World Bank have captured the language of sustainable development as a way of intervening in and controlling ‘…(and increase the market value of) environments, natural resources, and resource-dependent populations’ (Goldman 2001, p. 500). Based on a case study of the Mekong region in Laos, Goldman highlights the technologies of eco-governmentality, arguing that:

…the very same analytical and methodological tools that the World Bank and its partners invent and use, and the classificatory systems they establish in pursuit of environmentally sustainable development, represent an exercise of power. These tools, methodologies, and classification systems serve to create a new cognitive mapping of Lao nature and society, state and citizen, through new forms of knowledge production and institutional collaborations. They are a powerful set of discourses of norms, rights, and truths of global eco-rationality that seeks to build upon and replace prior formations that have dealt with the “subjects” of these new policies: hill tribes, forest dwellers, scientists, and development officials (Goldman 2001, pp. 512-513).

A similar perspective has also been expressed by Peace who investigated the way in which 'the discourse of environmentalism has become part of, and expressive of 'the will to govern' by a broad range of institutional forces (Peace, 1997; 531). He asks the question - how is the environment conceptualised and represented in order to achieve governmentality and with what local effects? (Peace, 1997, p.531). He argues:

Knowledge about the environment is generated and mobilised at a range of different levels from formal institutions, independent agencies, loosely ordered collectives, non governmental environmental organisations as well as research departments of major transnational corporations. All generate considerable stocks of environmental knowledge which is then incorporated into the formal programs and official policies of governing institutions …These documents are about technologies of repair, rectification and renewal. Having constructed the environment as damaged, sick, ill or exhausted, and now that the appropriate tests and inspections have been done, remedial work has been ingeniously devised. The significance of working papers, white papers and the like are to assemble visions of viable futures which can progressively and logically build on one another. Unlike the disorganised, even anarchic, environmental past, a new and linear order can be set in motion, and this finds its embodiment, as well as its articulation, in statistical tables, pi-charts, maps, and projections which, having detailed a past of default, deterioration and decay, detail its reversal (Peace, 1997; 535)

The repeated image in all of this, according to Peace, is that given the right kind of science and proper collective commitment to a ‘better’ (carefully contrived and constructed) future, the environment can be
effectively governed and ruled (Peace, 1997, p. 535). One of the outcomes of this reliance on statistical expert knowledge and the understanding that the environment is governable through bureaucratic processes is that local knowledge is not readily heard (Peace, 1997, p. 539). Using two case studies of environmental disputes, Peace demonstrates the way in which local knowledge and concerns about the local environment are subverted by the dominant environmental discourse. Hence, he concludes that ‘...governing the environment according to narrowly bounded cultural constructions becomes the means of also governing those who reside in it’ (Peace, 1997, p. 544).

What Peace’s analysis so clearly reveals is the storied nature of environmental discourse where two alternative narratives or storylines operate to move away from what’ is’ – the disordered present by detailing a future of order and control, one in which the ‘environment’ and individuals are effectively governed. These stories frame what is considered to be legitimate and illegitimate environmental knowledge but also form the basis of decision-making and the development of environmental policy. As Stone (2002, p. 138) argues two broad narrative stories dominate policy discussions – the story of decline and the story of control where the story of decline serves to set the stage for management and control procedures to be put in place. A similar argument is echoed by Emery Roe who argues that policy narratives ‘...describe scenarios not so much telling what should happen as about what will happen – according to their narrators – if the events or positions are carried out as described’ (Roe 1994, p. 37). The objective of policy narratives is for Roe ‘...getting their hearers to assume or to do something’ (Roe 1994, p. 37). This emphasis on the storied nature of policy discourse has been developed further within the field of environmental policy, particularly in the work of Hajer, (but also including Bridgman and Barry 2002; Fischer 2003; Petersen 2007; McBeth, Lybecker, and Garner, 2010) who argues that sustainable development should be analysed as a storyline that has created ‘...the first global discourse-coalition in environmental politics’ (Hajer, 1995, p. 14). This coalition shares a way of talking about environmental matters ‘by virtue of its rather vague story-lines’ (Hajer 1995, p. 14). Hajer’s understanding of environmental storylines has proven to be a fruitful line of inquiry in this thesis given the tightly storied characteristics of sustainable city discourse (see Chapter 6) and so the following discussion introduces Hajer’s approach in more detail, drawing more broadly the field of narrative policy analysis within which his work sits. One significant issue that emerges in both Hajer’s work and in
narrative policy analysis more generally is questions of agency – or questions around how individual actors can or do intervene in or disrupt dominant ways of talking and writing. I address this question in more detail before introducing positioning theory as an approach that provides insights into how these questions can be understood and approached theoretically.

3.5 Environmental Policy Stories

According to Hajer, story lines hold fragmented or contradictory positions and ideas together through suggesting a common understanding. They are narratives on social reality that provide a way of simplifying and unifying a complex range of information, ideas, values, ‘facts’ into a plot, a story that ‘sounds right’ allowing for discursive closure (Hajer, 1995, p.63). Discourse analysis therefore involves an approach to research that looks at how common understandings are produced and transformed. It ‘…investigates the boundaries between the clean and the dirty, the moral and the efficient, or how a particular framing of the discussion makes certain elements appear fixed or appropriate while other elements appear problematic’ (Hajer 1995, p. 54). In order to do this one needs to show whether definitions ‘homogenize’ a problem or make a problem understandable, or whether definitions ‘heterogenize’ or open up established discursive strategies.

Different actors group around what Hajer terms discourse coalitions, which can be made up of a range of different actors with different values and interests (environmentalists, politicians, developers and so on). They have possibly never met, nor necessarily agreed to follow a particular strategy, but they develop and sustain a way of talking and thinking about a particular thing, like environmental politics through the use of shared concepts and terms (Hajer 1996, p.247). So discourse coalitions’ group around specific story-lines, even though those involved might interpret the meaning of the story-lines differently according to different interests, or social and cognitive commitments (Hajer 1995, p. 13). Hajer argues that these differences need to be looked at closely. This involves locating the particular moments when discursive regularities are broken up because:
Depending on the meanings that people are able to give to a particular incident, this incident might develop the ‘forcings’ that make …previously stable policy discourses lose legitimacy and need to be rethought and revised. The power is therefore not simply in the discourse, but in the performance of a conflict, in the particular way in which actors mobilize discourses and reconnect the previously unconnected (Hajer and Versteeg 2005, p. 182).

Dominant story-lines are, however, often so powerful that they are difficult to disrupt or to challenge, and so they take the place of evidence and proof ‘…because their tightly storied characterisations, metaphors, and emplotments continue to underwrite and stabilise assumptions for decision-making (Bridgman and Barry 2002, p. 142).

For Hajer a discourse can be understood as dominant if an analyst can demonstrate discourse structuration and discourse institutionalization:

\[\text{Discourse structuration occurs when a discourse starts to dominate the way a given social unity (a policy domain, a firm, a society – all depending on the research question) conceptualizes the world. If a discourse solidifies in particular institutional arrangements, say a measuring system for air pollution, then we speak of discourse institutionalisation. We thus have a simple two-step procedure for measuring the influence of a discourse: if many people use it to conceptualise the world (discourse structuration) and it solidifies into institutions and organizational practices (discourse institutionalization). If both criteria are fulfilled we argue that a particular discourse is dominant (Hajer 2006, p. 70).}\]

However, even though a given discourse can be identified as dominant it does not follow that it is also monolithic. Storylines are continuously negotiated through discourse and meanings shift as so as Hajer adds story-lines are ‘the prime vehicles for social change’ (Hajer 1995, p. 63) and this change occurs through the emergence of new story-lines that reorder understandings.

In elaborating his approach to discourse analysis Hajer draws on the work of Michel Foucault and what he calls the ‘socio-interactive’ discourse theory of authors like Harre and Billig. From Foucault he takes an understanding of discourse as discontinuous. Policy discourse cannot be understood as a linear process from problem definition to solution and so Foucault’s emphasis on the need to investigate the ‘micro-powers’, the smaller less conspicuous practices, techniques and mechanisms of the ‘disciplines’ seem for Hajer to provide a more fruitful line of analysis. From Harre and Billig he firstly, takes an understanding of the subject as active and productive. Subject positions are not fixed, they are constituted
through and by discursive practices. Secondly, he takes an understanding of social change and permanence because story lines are not static:

Rules, distinctions, or legitimate modes of expression, only have meaning to the extent that they are taken up. It implies that the rules and conventions that constitute the social order have to be constantly reproduced and reconfirmed in actual speech situations, whether in documents or debates (Hajer 1995, p. 55).

Because of his emphasis on the role of agency and of social change, Hajer proposed a number of ‘corrections’ to Foucault’s approach to discourse analysis. In particular he expressed a concern with Foucault’s emphasis on the constraining workings of discourse at the expense of ‘the enabling aspect’ (Hajer 1995, p. 49) and argued that there is a need to combine ‘…the appreciation of the possibility on the part of specific actors to exercise – at least a notional – choice in relation to the various practices available to them’ Hajer 1995, p. 56). He therefore proposed a ‘bottom up’, reflexive approach to environmental decision making which moves away from a reliance on policy makers or info-brokers, (Hajer, 1995, p. 285) expert knowledge and linear policy making process to one where ordinary citizens are involved in what he terms a societal inquiry which is open to different points of view, specific knowledges and where ‘…people can recognize a role for themselves and can actively take part’ (Hajer, 1995, p. 291). Hajer’s argument rests on the belief that social change can be brought about by active agents intervening in or engaging in discourse. And while he acknowledged that dominant story-lines serve to constrain the way in which actors engage in a discourse and that ‘…discursive defiances come at a cost’, (Hajer, 1995, p. 273) the assumption is that with more voices involved in a discourse, or a societal debate, alternative interpretative frames will arise which can challenge and transform the dominant story-lines. And this transformation can lead to institutional change.

Roe who argued that there are quite specific ways in which dominant storylines can be disrupted in policy discourse espouses a similar position. He distinguished between two different types of stories – bureaucratic critiques or what he refers to as anti-stories or circular arguments, and conventional stories and argued that:

The potential for policy uncertainty and risk increases when one or more of the competing stories about the issue really is not a conventional story but rather a critique. At best, an antistory without an argument of its own leaves unaddressed the understandable need of
government officials and politicians to have a storyline when faced with what they do not know or cannot otherwise analyze and justify. At worst, critiques amplify the ambiguities of the issue (Roe 1989, p. 266).

Critiques or anti stories ‘…tell us what to be against without completing the argument as to what we should be for’ (Roe 1994, p. 53). The pressure to maintain the dominant storyline therefore remains. As Roe explained, ‘What displaces a policy narrative …is not a negative finding that seems to refute it. Refutation of a decision maker’s argument for action doesn’t mean you have taken away her or his perceived need to act. Rather, displacing a discredited narrative requires an equally straightforward narrative that tells a better story’ (Roe 1994, p. 40). These alternative storylines are what Roe refers to as counterstories, or stories that run counter to the dominant storyline (Roe 1994, p. 3). According to Roe this is a ‘better way to undermine a policy narrative’ because it allows the possibility to rewrite the dominant storyline.

According to Roe, the primary effect of a narrative policy analysis is to defamiliarize and decontextualize what the opposing parties take to be the givens of their controversy by rendering their differences into another story completely, the metanarrative (Roe 1994, p. 14). A metanarrative does not necessarily represent consensus or agreement but rather a different agenda or a different story that breaks the deadlock between opposing voices and allows for policy intervention. A metanarrative in effect allows discussion to proceed.

Narrative policy analysis as defined by Roe is therefore useful in resolving policy problems or conflicts, by identifying the middle ground, the metanarrative that enables an issues resolution and policy intervention. In order to do this he adopts a particular approach to complexity. Narrative policy analysis, for Roe, is useful for policy issues that are complex, uncertain and polarized, if they are not then conventional policy analytic techniques can be used. He argued that:

…this concern of the narrative policy analyst to demonstrate complexity, uncertainty and polarization as a starting point for analysis contrasts with the typical ending point of applied social science research in uncovering complexity. For the social scientist, the problem is to avoid thinking that answers are simple, when matters are discovered to be complex. For the narrative analyst, the problem in searching for answers is to avoid thinking that a problem is complex and uncertain and divisive, when it is not. The narrative policy analyst wants to be absolutely confident that the issue is truly one of many unknowns and deep divisions in order to
apply those semiotic and narratological techniques based on binary contraposition (Roe 1994, p. 160).

And so the aim is to reduce the complexity of a policy problem so that a decision can be made. Roe’s understanding of a metanarrative is a useful way of understanding sustainability and sustainable city discourse and why it has so successfully allowed disparate voices to engage in a discussion and for decisions to be made. Equally useful is his account of the types of ways in which the dominant storylines can be disputed and why attempts to disrupt dominant understandings of sustainability do not always achieve their desired outcome. The concepts of anti stories and counter stories are, therefore, useful explanatory devices that are put to use in the case study and explain not only why agreement could be reached but also why (or why not) some voices were excluded during the process and why others were able to disrupt or challenge dominant understandings.

In discussing questions of power and politics Roe argued:

Power and politics do not disappear … Rather they operate only when access to decision making resources is articulated and differentiated through and by means of competing policy narratives about the issue in question. Unequal power relations work themselves out through the competition and opposition of stories, storytelling, and other policy narratives that get people to change their own stories when conditions are complicated, full of unknowns, and divisive (Roe 1994, p. 13-14).

But how is that access to be achieved? Roe went on to argue that narrative policy analysis ‘encourages marginalized voices in a controversy to speak up, to tell their own stories, on the grounds that the more policy narratives there are, the better idea about metanarratives, if any, they generate’ (Roe 1994, p. 18). How this encouragement should or even happen is left open for the analyst in question, but it assumes that the opportunity and indeed the interest to be involved lies dormant awaiting encouragement and tolerance on the part of the policy analyst. It also suggests that those affected by the outcome of a particular policy controversy are aware of how and in what ways they will be affected by that policy and that they can tell their own stories, and finally it dispenses with the constraining effects of a particular discourse or storyline and the way in which it is framed in the first place. Simply including marginalized voices in policy debates and allowing them to tell their own story does not necessarily lead to a more inclusive process without examining the terms of the debate in the first place. This applies particularly to discourses like sustainability discourse that is framed in terms of ‘everybody’ being involved (see Chapter 5).
As Young points out ideas of inclusion are based on ‘questionable assumptions’. She argued that:

To the extent that norms of deliberation implicitly value certain styles of expression as dispassionate, orderly, or articulate, they can have exclusionary implications. Such a focus on a narrow deliberative style, moreover, ignores the important role other forms of communication play in furthering inclusive democratic outcomes (Young 2000, p. 6-7).

To advocate inclusion, or simply adding more voices is not enough in itself, without considering the processes by which or through which inclusion is understood and operationalised. According to Young ‘inclusive political processes should not be thought of as enfoldings its participants in a single public with a single discourse of the common good (Young, 2000, p. 12). For Young inclusive democracy, ‘…requires openness to a plurality of modes of communication, and …inclusive political discussions should recognise and attend to social differences in order to achieve the wisest and most just political judgments for action’ (Young 2000, p. 12). Inclusive democracy therefore involves more that simply evoking inclusion and calling for the involvement of marginalised voices if such a call:

…presupposes an already given set of procedures, institutions, and terms of public discourse into which those excluded or marginalised are incorporated without change. In this image of inclusion, the particular interests, experiences, and ways of looking at things that the formerly excluded bring to politics makes little difference to its processes or outcomes. On this image, bringing about political equality consists in extending already constituted institutions and practices to people not currently benefiting from them enough, and thereby expecting then to conform to hegemonic norms (Young, 2000, p. 11-12).

Inclusive processes often involve identifying ‘categories’ or ‘types’ of marginalized groups and people, based on the assumption that these categories and types are representative of a group as a whole. This reductive tendency is evident in sustainability discourse which casts its net wide to include all people, everywhere (see Chapter 5). But who are these people that need to be included and how are they included in dominant storylines? These are important questions because as Hajer notes:

Storylines are devices through which actors are positioned, and through which specific ideas of ‘blame’ and ‘responsibility’, and of ‘urgency’ and ‘responsible behaviour’ are attributed. Through storylines actors can be positioned as victims, as problem solvers, as perpetrators, as top scientists, or as scaremongers (Hajer 1995, pp. 64-65).
The questions of positioning and of agency are important ones that appear to be unresolved in both Hajer and Roe’s work. As argued above simply adding more voices to a policy debate does not necessarily lead to inclusion of those voices without understanding how those voices are positioned within the discourse. In order to understand questions of agency and of positioning one needs to examine the positions that are available to participants in any given storyline. The following discussion explores this question of positioning further drawing in particular on positioning theory. The focus on cultural stereotypes in positioning theory suggests that it is not individual actors per se who can disrupt dominant understandings but rather careful attention to how cultural stereotypes function to constrain how actors can engage in a given policy discourse.

3.6 Positioning theory

Positioning theory is concerned with ‘…the process by which short-term and small scale moral orders are established and maintained, and with the way the actions of participants are constrained to flow in accordance with sharply delimited schemata or conventions (Moghaddam, Hanley and Harre’ 2003, p. 137).

Positioning theory adopts a dynamic approach to discourse analysis where social meaning is understood not as fixed and self evident but actively produced and negotiated. Discourse is understood to mean ‘…a multi-faceted public process through which meanings are progressively and dynamically achieved (Davis and Harre’ 1990, p. 46). In order to engage in a particular discourse or storyline individual actors adopt subject positions which are made available through the storyline. A subject position involves adoption of a ‘conceptual repertoire’ through which individuals position themselves and others within a storyline (Hajer and Versteeg 2005, p. 177). So it is not just through concepts and categories, both of which are made available in discourse but also through storylines that ‘we’ make sense of the world. Storylines therefore not only enable but also constrain the way in which individual actors can speak, think and act in the world. So here a position can be understood as

…a loose set of rights and duties that limit the possibilities for action. A position implicitly limits how much of what is logically possible for a given person to say or do and is properly a
part of that person’s repertoire of actions at a certain moment in a certain context, including other people. This bounds the content of the repertoire of socially possible actions (Harre and Moghaddam 2003, p. 5).

Positions are therefore different from roles or categories that remain fixed. From the perspective of positioning theory, ‘An individual emerges through the processes of social interaction, not as a relatively fixed end product but as one who is constituted and reconstituted through the various discursive practices in which they participate’ (Davies and Harre 1990, p. 46).

Positions can be presumed, adopted or ascribed (Harre and Slocum 2003, p. 128) and ‘In carrying on disputes it is an enormous advantage to be occupying the “moral high ground” ’(Harre and Slocum 2003, p. 129) where positioning opponents in disadvantageous ways can reduce the scope of their actions. So positioning involves not only positioning oneself in a discourse but the strategic positioning of others.

Positioning theory is therefore concerned with how individual actors position themselves within existing storylines and subject positions and how this (not necessarily self conscious) act of positioning not only constrains the way in which individual actors can speak and write about a particular phenomena or event but also how they can intervene or disrupt dominant storylines through refusing a particular subject position or storyline. Analysis based on positioning theory therefore requires attention to three things: storylines, subject positions and speech acts or what has been defined as the positioning triad.

According to Harre and Moghaddam for the purposes of research the positioning triad can be entered into at any of the vertices – position, speech act or story line – but ‘For most purposes, entering at ‘storyline’ has certain advantages (Harre and Moghaddam 2003, p. 9). The aim is to identify the storylines within which participants in a discourse or dialogue position themselves. So examples of story lines may be ‘David and Goliath’ or ‘Doctor and Patient’ and it is possible, as a first step in analysis, to use these storylines as ‘…a working hypothesis about the principles and conventions that are being followed in the unfolding of the episode being studied (Harre and Moghaddam 2003, p. 9). In every storyline there are a range of subject positions that are taken up by participants (as in doctor and patient) and it is possible to hypothesise using the storyline about how people will position themselves within that storyline. Research therefore ‘…should include not only an analysis of the episode in question from various points
of view, but also a catalogue of what must be tacitly known by the participants’ (Harre and Moghaddam 2003, p. 9).

Positioning theory is not only concerned with individual subject positions but also to understand institutionalized discursive processes (Harre and Van Langenhove 1999, p. 11). As Harre and Van Langenhove noted:

…the practices of such an institutionalized field can be understood in terms of the positioning activities of the participants and of how the discursive practices typical of that field generate specific redescriptions of certain aspects of the world, thus constituting them (Harre’ and Van Langenhove 1999, p. 11).

Analysis based on positioning theory begins with people’s perception of the main issues, what the short term and long term goals are along with identification of the main groups or actors identified in the narratives or storylines, how are these actors defined, by whom, and who is included or excluded as members of a group (Harre and Slocum 2003, p. 131). And finally it considers what particular subject positions are available in the storyline.

Storylines can either be explicit or implicit and so the second level of analysis requires attention to identifying the multiplicity of storylines that exist within any given episode. The aim is to discern what discursive resources are available to participants. What metaphors, what rhetorical devices, narratives and storylines already exist and how are these put to use. How do they constrain what can be said and the positions that are taken up by participants. According to Harre and Slocum ‘a position not only delimits the speech acts available …but also serves to preinterpret what the person says or does’ (Harre and Slocum 2003, p. 129) and so a speech act is not just a passive retelling of a storyline from a prescribed position it also has illocutionary and perlocutionary force.

Identification of storylines, positions and speech acts enables comparisons to be made between participants’ positionings, storylines and what they achieve to reveal not only positions but also to explain how some storylines are more dominant than others. The focus of analysis is therefore not on how often something was said to verify the dominance of a particular storyline but rather to consider how participants positioned themselves and others in relationship to the available storylines. Who is included
and excluded becomes important here because as Hajer argues, ‘Positioning is not merely a matter of cornering one’s opponents in concrete discursive exchanges. The power of policy discourse is also a matter of routinizing a particular ‘parlance of governance’, of excluding or marginalizing alternative ways of seeing’ (Hajer 2003, p. 107).

Positions often appear as cultural stereotypes or characters in stories ‘…in all sorts of stories’ and so the storyline ‘…can be interpreted as a vehicle for stereotypes’ (van Langenhove and Harre 1999, p. 134).

And so for van Langenhove and Harre

A storyline or narrative style incorporates not only a conventional flow of events – such as ‘hero undertakes quest’; ‘hero is tricked by villain’; ‘hero receives magic help’; ‘hero triumphs’ – but also characters …These are, of course, stereotypes (van Langenhove and Harre 1999, p. 134).

Cultural stereotypes are, according to van Langenhove and Harre ‘rhetorical devices that people use in order to position themselves and others…they are best viewed as located in the rules and conventions of the discursive practices of distinct cultural worlds from which they can be appropriated (van Langenhove and Harre 1999, p. 137). These cultural stereotypes, because they are so central to the dominant storylines, are also difficult to challenge or resist and as van Langenhove and Harre point out:

...change in the way people view one another under categories has nothing to do with either exposure to the ‘right’ stimuli or with correcting false images. Instead, change of stereotypes can be achieved by changing the discursive conventions by which a self-positioning and the reciprocal positioning of others is achieved on a local basis In short change requires attention to storylines, allowing ‘new’ or alternative characters to emerge (van Langenhove and Harre 1999, p. 137).

According to van Langenhove the role of the researcher is not to define new characters and new storylines but rather to reveal to participants how positions, storylines and cultural stereotypes limit what can be spoken and written about in discourse, so that they can in turn disrupt those understandings. To do otherwise is to position oneself as a ‘convincer’ ‘the wrong position to achieve change (van Langenhove and Harre 1999, p. 138).

Positioning theory therefore offers a useful framework for structuring research about a complex and contested concept like sustainability, and environment more generally, when the aim of the research is not
to establish or discover the ‘real’ meaning or essence of the term but rather to consider questions of how.

The research approach adopted in this thesis has followed this framework focusing in particular on the first two components of the positioning triad: storylines and positions. It begins with an analysis of storylines or sustainable city storylines more specifically before turning, in the case study, to a consideration of positions and positioning. The aim of the analysis is not to identify faults in argument, nor to reaffirm or deny dominant perspectives, so that faults can be rectified by identifying alternative storylines and positions, but rather to reveal how storylines and positions function to include and to exclude and with what effects.

3.7 Conclusion

In this chapter I have considered the application of discourse analysis to sustainability and environmental research. I have discussed broad questions like what is discourse and what is discourse analysis, before turning to a focus on the applicability of discourse analysis to environmental and sustainability discourse. Key theorists have been introduced and a research approach identified. In summary the approach I have in this thesis adopted draws on Foucauldian perspectives on discourse analysis particularly with regards to questions of power, governmentality and social change. Additionally I have drawn on narrative policy analysis and on positioning theory to develop a method of analysis, and the thesis draws quite specifically on positioning theory as a useful framework for not only structuring the thesis but also for analyzing data. The specific methods employed are detailed in the next chapter, Chapter 4.
Method

4.0 Introduction

In the previous chapter, I considered the application and applicability of discourse analysis to sustainability and environmental research and explained how and why I have drawn on this approach. There are a multiplicity of approaches that can be described as discourse analysis and so the chapter also provided an overview of the methodology applied here. This chapter outlines the methods. As I noted in the previous chapter discourse analysis offers a methodological framework for research rather than referring to a specific set of methods. As Hoggart, Lees and Davies (2002, p. 165) have noted discourse analysis is, ‘something like bike riding…which is not easy to render or describe in an explicit manner’ (Hoggart, Lees and Davies 2002, p. 165). Discourse analysis offers a theoretical orientation where the aim of research is not to seek out or establish what is ‘true’ or ‘correct’ but rather to understand the rules of engagement. This involves mapping areas of agreement, disagreement and omissions and to consider how meanings are produced in discourse, rather than search for and then establish meaning. It also suggests a particular orientation towards data and data collection where discourses are themselves seen as being worthy of analysis. However, as de Beaugrande points out:

Analysts of discourse work with data which they are always decisively implicated in (re)producing and determining…So we analysts should seek to make our own positions explicit, and to systematize the relation between the discourse being analysed and the discourse of the analysis (de Beaugrande 2004, p. 114)

The aim of research in the field is not to discover ‘knowledge’ but rather intersubjectivity and so research needs to reveal the researchers active engagement with the discourse being analysed. My position is reflected not only in the methods employed in this thesis but also in the way in which the thesis is structured. In this chapter I therefore begin by outlining why I adopted this approach as a way of clarifying my position, before turning to the specifics of why and how I approached the data as well as what I considered to be data in the way that I did.
4.1 Towards a method

This research began with a different set of research questions and a different research agenda. The original research intent was to explore the way in which ideas about sustainable cities were understood and operationalized on the urban rural fringe, in Australia. I began this initial stage of research with interviews that attempted to probe what some of the difficulties were in applying and operationalizing specific ideas around sustainability in low-density suburbs. The interview schedule was open-ended based on a snowball sampling technique. As the interviews proceeded what became evident is that no matter how far or hard I probed there was a clear and predictable regularity in the way in which sustainability and the sustainable city was spoken about that referred not necessarily to a particular place, the case study area, but rather referenced a much broader discussion. Put another way there was a clear link between what I was reading as part of my literature review and the way in which respondents replied to the questions I posed. What constituted the attributes of a sustainable city sounded increasingly like a ‘mantra’ based around two, what I came to understand as storylines. This insight is of course not new. Referring to the Australian context Anderson has argued that discussions about future sustainable cities are overly polarized; it is ‘a stubbornly binary discourse’ (Anderson, 2006, p. 5); an insight also identified by a number of other commentators, including Troy (1992, 1996) and Gleeson (2008).

What also became clear during the interviews was that ‘sustainability’ was a term that was meaningful to only a small group of people in the case study area. Those involved in the sustainability debate or those who were identified by interviewees were drawn principally from business, industry local government and environmental NGO’s. This led me to consider if sustainable cities are, as the rhetoric suggests, about the future for all people, who is involved in defining that future? My interest therefore shifted from attempting to understanding how sustainable city strategies could be implemented towards an interest that revolved around two broad questions – sustainability of what and for whom.

This left me with a dilemma – to continue to conduct interviews which increasingly affirmed dominant ways of talking about sustainable cities leading to a research outcome that would simply say this is what
now needs to be done – or alternatively to probe more deeply into why there was such a level of consistency in the way in which the future sustainable cities were spoken about. In short my research took a discursive turn. I began to ponder how and why particular ideas about what constitutes a sustainable city had become so dominant and even more importantly why they were so difficult to challenge.

The need to challenge dominant understandings about the sustainable city also emerged from my own position as marginal to those understandings. Being a single mother living on the urban rural fringe there seemed little space to assert or insert my own understandings of ‘sustainability’. The dominant framing in terms of ‘sprawl’ versus ‘containment’ (see chapter 6) meant that where I lived (and where I was positioned in the discourse) was simply reduced down to a homogenized notion of ‘sprawl’. However, rather than simply reverse dominant understandings, my aim was to disrupt them in an attempt to open up spaces for voices marginalized within the dominant discourse.

It was at this particular stage in the research that the Australian Federal Government announced an Inquiry: the House of Representatives Standing Committee on Environment and Heritage’s Inquiry into Sustainable Cities 2025. The material from the Inquiry as it was released into the public domain between 2003 to 2005 provided a rich body of material to develop an understanding of the way in which the sustainable city is currently understood and contested in Australia. The Inquiry attracted 196 submissions from participants who aimed in some way to influence how ‘sustainability’ and ‘the sustainable city’ could and should be understood and implemented and so all attempted to position themselves (and others) within the discourse(s) or storyline(s). They, therefore, formed what Hajer (1995, p. 13) refers to as a discourse coalition. Given this body of material my attention turned to the questions - to what extent did dominant ways of understanding ‘the sustainable city’ constrain what could be said throughout the inquiry? How and to what extent did participants attempt to open up the terms of the debate? Who could legitimately speak in the inquiry? And whose voices were heard?

The questions guiding this research therefore became:
how is the idea(l) of sustainability and the sustainable city framed in discourse?

how is it contested?

what are the basic terms and conditions upon which agreement or consensus are reached?

which understandings come to dominate and which are marginalized?

what storylines and subject positions are available to participants in sustainable city discourse?

And finally how is transformation or change possible?

In order to answer these questions I adopted a particular stance to what I considered to be ‘data’ where the literature review was understood as a discourse, rather than as background. It provided the background or framing that allowed discussion to take place. The aim of this first stage of analysis was to identify structuring concepts, ideas and categories, employment of storylines, metaphors (Hajer 2006, p. 72). It was here that Hajer’s work on storylines (see Section 3.5) became particularly useful. As Hajer explains storylines function in three ways:

- They reduce the discursive complexity of a problem and create possibilities for problem closure
- They give a certain permanence to a debate and as more actors begin to use the storyline it gains a ritual character. Storylines become ‘tropes’ or figures of speech that rationalize a specific approach to what seems a permanent problem.
- And they provide a narrative that allows different actors to show how their understanding fits into ‘the jigsaw’ (Hajer 2003, p. 63).

This was followed by a case study that focuses quite specifically on the Inquiry documents. The aim was to move from the broader discourses around sustainability and sustainable cities, or the macro level, towards the specific site of argumentation (Hajer 2006, p. 72) or the micro level using an example or case study.
The use of a single case study or a ‘dense data case-study’ as opposed to a comparative approach yielded outcomes (Peattie 2001, p. 259) that were not generalizable but none-the-less useful for understanding discursive constraints. As Peattie put it:

a dense case-study, appropriately analysed, is more useful for the practitioner and more interesting for social theory than either factual ‘findings’ or the high-level generalizations of ‘planning theory’. The dense data case-study can help the practitioner to look out for the pitfalls and potentials of particular institutional forms, and to consider social action at the small grain of actors and incentives (Peattie 2001, p. 259).

The aim was to develop a method for analysis that would allow a level of open-endedness and sensitivity to the richness of the data rather than arrive at fixed and generalizable ‘finding’. Flyvbjerg summarized this approach to a single case study and the outcome of research as follows:

The opposite of summing up and “closing” a case study is to keep it open. Here I have found the following two strategies to work particularly well in ensuring such openness. First, when writing up a case study, I demur from the role of omniscient narrator and summarizer. Instead, I tell the story in its diversity, allowing the story to unfold from the many-sided, complex, and sometimes conflicting stories that the actors in the case have told me. Second, I avoid linking the case with the theories of any one academic specialization. Instead, I relate the case to broader philosophical positions that cut across specializations. In this way, I try to leave scope for readers of different backgrounds to make different interpretations and draw diverse conclusions regarding the question of what the case is a case of. The goal is not to make the case study be all things to all people. The goal is to allow the study to be different things to different people… Readers are not pointed down any one theoretical path or given the impression that truth might lie at the end of such a path. Readers will have to discover their own path and truth inside the case (Flyvbjerg 2006, p. 238).

Initially I examined the inquiry documents for evidence or traces of the dominant storylines drawn from broader literature. However, answering the remaining research questions, required a much more detailed textual analysis which moved from a consideration of storylines – which storylines were dominant, how they are contested, towards positioning or the second stage of the positioning triad (see section 3.6). As I explained in chapter 3, analysis based on positioning theory is concerned with examining how participants positioned themselves in relationship to the available storylines. Positions often appear as cultural stereotypes or characters in stories that broadly fit into the typologies of victims, villains and heroes (Stone 2002), or victims, villains and fixers (Beall, Crankshaw and Parnell 2000). Cultural Stereotypes are defined here, following van Langenhove and Harre, as ‘a set of consensual beliefs of one group about the attributes shared by members of another group (van Langenhove and Harre 1999, p. 129). These can shift and change even while the storylines remains in many cases similar. How participants
positioned themselves and others within the dominant storylines therefore becomes the focus of the next stage of analysis. This required a particular way of reading and analyzing the Inquiry documents and so in the next section I outline the methods employed in this reading and analysis. The discussion begins with a background to the Inquiry before moving to the methods of analysis employed.

4.2 Background: The House of Representatives Standing Committee on Environment and Heritage - Inquiry into Sustainable cities

The Australian Federal Government’s House of Representatives Standing Committee on Environment and Heritage’s Inquiry into Sustainable Cities began in August 2003 with the final report tabled in Federal Parliament on 12th September 2005. During the process of the inquiry 196 submissions were received\(^\text{10}\) and 15 public hearings were held in 6 capital cities – Canberra (8), Sydney (3) Melbourne (1), Perth (1), Brisbane (1), Adelaide (1). The Inquiry followed a similar inquiry a decade earlier undertaken by the House of Representatives Standing Committee for Long Term Strategies titled *Patterns of Urban Settlement: Consolidating the Future?* (1992)\(^\text{11}\) and while it was noted that many of the issues were similar, the 2003-2005 Committee argued that the situation had now become more urgent and consequently ‘sustainable cities’ needed to be at the forefront of Government Agendas (House of Representatives Standing Committee on Environment and Heritage 2005, p. 2). The 2003-2005 Inquiry took place in the lead up to and in response to the Year of the Built Environment (2004) that was announced by the Australian Federal government to encourage ‘greater community participation in planning our cities, suburbs, towns and regions’ (Kemp 2003). The May 2003 Federal Budget also allocated $40 million over 5 years to a *Sustainable Cities* programme.

The purpose of the inquiry was to provide a ‘national map’ of the issues and approaches (House of Representatives Standing Committee on Environment and Heritage 2003, p. 2) as a way of informing future policy. The Inquiry process brought together a range of interests and the final report, tabled in Parliament in September 2005, attempted to distil all of this down into a common national vision or approach for Australian cities to the year 2025. While the inquiry process itself did not result in the

\(^{10}\) Only one of which is not publicly available

development of specific policies or strategies, the inquiry documents provide a rich understanding of the way in which the sustainable city is currently framed and contested in Australia.
Public Inquiries provide a quite specific and rich resource (Hajer 2006, p. 72) for understanding how key actors define or contest a particular policy problem. In Australia, parliamentary committees are made up of a group of Members or Senators (or both in the case of joint committees) appointed by one or both Houses of Parliament. Through these committees the Parliament seeks to obtain information from Government agencies, peak bodies and experts on the matters under investigation. The understanding is that Parliament can also be better informed of community problems and attitudes. Committees therefore aim to provide a public forum for the presentation of the various views of individual citizens and interest groups. Inquiries are a two-staged process where an initial call for submissions is followed by a public hearing. The submission stage is open to all – experts, government departments, peak bodies, interest groups and citizens. The Committee then invites particular participants to discuss their submissions in greater detail and to answer questions. As well as formal hearings, committees can also conduct seminars, public meetings, focus groups, round table discussions and other less formal gatherings to hear the opinions and ideas of experts and the community. They may also go on site visits of relevance to the inquiry. After examining all the evidence, the committee then prepares a report setting out its conclusions and making recommendations and this report is presented to the House, or to both Houses in the case of a joint committee.
As mentioned earlier the House of Representatives Inquiry attracted a significant number of submissions and the public hearing stage of the process took place over 15 days. Therefore there is a large volume of material to analyze. In the next section I detail the procedure adopted. Presented as a procedure, however, suggests that the process was a linear one moving through different stages of analysis. In reality the process was much messier than that, involving a constant revisiting of the data through all stages of the research. So while the process began using specific categories that were identified in the data, including broader literature, the research approach also needed to allow for a revisiting and reinterpretation of those categories and the material to reflect the complexity of the debate. As Sharpe and Richardson (2001, p. 194) observe, ‘the reflexive approach adopted by the researcher—a necessary part of constructing a research design—is crucial to the success of a discourse analytic approach’.

4.3 Methods of analysis

To begin the case study I focussed firstly, on the initial framing of the Inquiry as outlined in the discussion paper (see Appendix 1). I considered here how this particular framing reflected and reiterated the dominant discourse about sustainable cities as outlined in chapter 6. This was a first attempt at defining structuring discourses in the discussion (Hajer 2006, p. 72). I then identified the way in which this framing was either repeated or reinforced by participants throughout the Inquiry. I also looked for particular instances where these dominant understandings were challenged and considered how this was done and with what effects. I therefore examined how oppositional voices sought to disrupt dominant understandings by examining these alternative arguments and storylines. I considered what was said, how it was said and what tactics were used. I also considered how effective these arguments and tactics were in shifting the way in which the sustainable city was framed, and so I finally moved to the final report to consider how the initial framing (as outlined in the discussion paper) shifted as a result of the Inquiry process. In order to do this 195 or 196 submissions were initially summarized in a table or matrix under the following headings:

- Who
- What
- The way the current situation is described
- Proposed solutions
This task was also repeated with evidence presented during the public hearings. The aim here was to provide an initial map or guide to the data rather than to reduce it down to fixed categories. It allowed for the summarizing the data without losing any of its richness. What I was looking for was not just how often the words, phases, ideas, concepts and storylines were used but also for both similarities and differences in how they were used – and the way in which they conformed to the idea of the dominant storyline as outlined in the discussion paper. What, in short, allowed the dominant storyline to ‘sound right’? The aim was therefore not simply to reconstruct the arguments but to account for the ‘augmentative exchange’ (Hajer 2006, p. 72); to better understand the competing versions of reality perceived by the actors in ‘these thick urban stories (Moore 2007, p. 5).

The headings for the table were considered to be significant after an initial reading of the discussion paper and a preliminary review of the submissions. They did not however remain static but provided a vehicle for the initial organisation of data. At this stage my focus was on how the ‘problem’ was defined, what were the proposed solutions or how change could be brought about.

The discussion paper had called for input from a wide range of professions, community groups, local and state governments, researchers, businesses, industry associations and individuals (House of Representatives Standing Committee on Environment and Heritage, 2003, p. 2) and so the first column in the matrix was of interest in terms of who was involved in the process. The ‘who’ became even more important in analysis of evidence presented in the inquiry – because ‘who’ was chosen to provide evidence also revealed a lot about the process. As Smith points out ‘what is forgotten or expunged from an account is as important as what is transmitted. By casting an analytic gaze upon only half of the data, discourse and narrative analyses remain necessarily incomplete (Smith 2010, p. 131). Establishing the ‘who’ was, however, fraught with difficulty as is any act of classification. Defining and classifying the
‘who’ revealed little about the Inquiry process itself (see Chapter 8). Focusing on the ‘who’, however, revealed the usefulness of positioning theory as an approach to analysis rather than applying fixed categories or roles to participants. It therefore became much more useful to consider the ‘who’ as positions or characters in storylines.

The next column –what- was of interest because of the careful framing of the debate in the discussion paper and in the terms of reference. While many of the submissions directly addressed the terms of reference, (see section 7.1) others were much more concerned with a single issue and therefore did not necessarily address the terms of reference. What these issues were became significant particularly in analysing evidence presented to the inquiry – what issues were considered to be central to these discussions, and which issues were omitted in these discussions? As Myerson and Rydin (2004) note ‘…it is harder and harder to draw a line around certain issues and say: this is an environmental issues’ (Myerson and Rydin 2004, p. v). What was considered a sustainability issue during the Inquiry and what wasn’t therefore became quite significant and revealed how storylines function to not only enable but also constrain what can be spoken and written about.

The next five columns -The way the current situation is described, proposed solutions, constraints, tools and the way in which sustainability was defined provided an initial map of storylines, while the final four categories allowed for a much closer examination of the differences between participants particularly in the way in which these key terms were defined. It was here that the differences between participants were most evident even amongst those who framed their position in terms of the dominant story lines of decline and control.

I then considered who the characters were in these storylines or the way in which participants positioned themselves and others within the storylines. The aim was to re-tell the storyline differently. As argued previously positions are not static but are constantly negotiated through discourse. Therefore the focus here was much more on the positioning effects (Hajer 2006, p. 72), or how these positions shifted and changed.
It is important to note here that the aim of analysis was not then to redefine or re-tell those positions, and storylines so as to generate ‘fixed laws’ or alternative storylines but rather to illuminate the mechanisms in play in policy practice (Hajer and Laws 2006 p. 262). The role of a researcher is therefore not to simply define new characters and new storylines but rather to reveal to how positions, storylines and cultural stereotypes limit what can be spoken and written about in discourse, as a way of revealing ‘a possible transgression’ or a way of thinking differently.

As Foucault so clearly put it:

Critique doesn’t have to be the premise of a deduction which concludes: this then is what needs to be done. It should be an instrument for those who fight, those who resist or refuse what is. Its use should be in processes of conflict and confrontation, essays in refusal. It doesn’t have to lay down the law for the law. It isn’t a stage in a programming. It is a challenge directed at what is (Foucault 1991 p. 84).

4.4 Conclusion

In this chapter I have outlined the methods employed in this thesis. While presented in a linear way, as I have emphasized, the key to the research approach was a reflexive one involving a continuous process of revisiting the data. Importantly, I have understood both sustainability and sustainable city discourse as data, or more specifically as storylines. The next two chapters therefore examine both sustainability and sustainable city discourse not as background but rather as constitutive of the storylines that have come to dominate the way in which the future of cities is understood both globally and in Australia. The emphasis in both chapters is therefore on the storied nature of sustainability discourse.
Environmentalism and Sustainability: the Emergence of a Metanarrative

5.0 Introduction

Ever since the beginning of what has been described as the ‘modern environmental movement’, ‘Environmentalist rhetoric has insistently framed its arguments about how societies do and should live with nature in relation to the twin tropes of catastrophe and ecotopia’ (Garforth 2006, p. 8; see also Merchant 1995):

On the one hand, dystopian narratives extrapolated issues of pollution and resource depletion into future scenarios of environmental degradation and social collapse, which challenged modernity’s ideological frameworks of progress and unlimited economic growth and urgently argued for the delegitimisation of the technocratic exploitation of nature … On the other hand, hopes and visions of emancipated and unalienated futures in the right relationship with nature promised an alternative culture of ecological integrity and human well-being beyond growth and domination (Garforth 2006, 8).

Or put more simply, as Moore suggests, ‘The idea that we should live sustainably begins with the observation that we do not’ (Moore 2007, p. 5).

From the stories of apocalypse and collapse characteristic of the late 1960’s and 1970’s to ideals about the need for sustainable development that emerged in response in the 1980’s, these stories are generally based on a series of statements or proposals about what now needs to be done in order to move from the present into the future. Storylines follow a similar plot, involving ideas of collapse or recovery, or decline and control (Stone 2002), even if the definition of the problem or problems, the causes and proposed solutions, and the characters – the victims, villains and the heroes – often differ. All share a tendency to reduce the environmental ‘crisis’ down to a single ‘root cause’ so that priorities can be established ‘…and a definite agenda determined’ (Ellis 1995, p. 267).

The discourse of sustainable development which made its way onto the ‘world’ stage in the 1970’s, gaining in popularity in the 1980’s, can be seen as a moderating discourse, or metanarrative (Roe 1994) or an attempt to find the middle ground between more radical and mainstream environmentalists, on the one hand, and also between industry, business and government on the other. Drawing on both the
Language and the demands of environmentalists the promise of sustainable development was that ‘we’ could avoid overshoot and collapse while still ensuring continued economic development. In short a ‘win-win’ situation for all. As Moore puts it sustainability can be understood as ‘... the social construction of a storyline that provides a historical alternative to the prospect of environmental collapse’ (Moore 2007, p. 7). Similarly Fischer argues that:

Because the earlier environmental storyline, ‘limits to growth’, proved to be a non-starter for the industrial community ...there was a need to innovate a new storyline capable of working for both environmentalists and industrialists (Fischer, 2003, p. 88).

The emphasis in sustainable development discourse is on the ‘new’, aimed at ‘altering ways of thinking’ (Myerson and Rydin 1996, p. 99) within a framework of ‘reasonableness, optimism, moderation’ as a means to overcome polarities in discussions (Myerson and Rydin 2004, p. 194). Because this new path represented the middle ground emphasis was placed on the need for consensus, negotiation and the articulation of a common and shared future. Catastrophe could be avoided but only if the whole of humanity joined together in a common quest to ‘save the planet’. The concept sustainable development is, therefore, broad enough to encapsulate a huge range of concerns and interests and so provided a vehicle to transcend localised and individualistic concerns reinterpreting them as both global and ‘common’ to all of humanity. Commenting on Our Common Future Brenton points out:

In one neat formula, Mrs Brundtland had provided a slogan behind which first world politicians with green electorates to appease, and third world politicians with economic deprivation to tackle, could unite. The formula was of course vague, but the details could be left for later (Brenton 1994, p. 129).

This chapter briefly traces the emergence of sustainable development discourse and demonstrates how it drew on (some would say co-opted, see McManus 1996) the language and the storylines of early environmentalists and reinterpreted them so that they became not only more palatable for environmentalists and the general public but for industry, business and policy makers. Offering a vision of the future without division and where catastrophe has been avoided the discourse has gained in power and credibility because of its ability to harness support and to draw on and incorporate differing perspectives through a shared storyline. The chapter backgrounds the discussion in the next chapter which examine the application and implications of these broad storylines within the context of sustainable cities.
This discussion is necessarily selective, focussing in particular on global discourses around sustainability – those emanating in particular from the United Nations. This initial focus is not to suggest sustainability has not been interpreted and re-interpreted across a wide spectrum of environmentalisms or at different scales, a point that was explored in chapter 2. The chapter traces instead what is considered to be the dominant discourse; a discourse that has successfully transcended not only sectoral and disciplinary boundaries but also those of nation states.

5.1 The Emergence of the Global View

On Christmas eve, 1968 an image of earth – fragile, bounded and finite was beamed back to earth from the space shuttle Apollo 8 while the crew read the first 10 verses of Genesis, the story of the creation of the earth, as they orbited the moon. While this was not the first image of earth from space, it was the most watched broadcast ever (Cosgrove 2001, p. 257). Depicting earth as a small blue globe peeping out from behind the moon, the image which has come to be known as Earthrise was described the following day in the New York Times by poet and playwright, Archibald MacLeish as:

To see the earth as it truly is, small and blue and beautiful in that eternal silence in which it floats, is to see ourselves as riders on the earth together, brothers in that bright loveliness in the eternal cold—brothers who know now that they are truly brothers (cited in Cosgrove, 2001, p. 259).

What MacLeish’s prose so clearly spoke to was a particular mood at the time (emerging in America but quickly spreading throughout the western world) fuelled by heightened concern about ‘the environment’ expressed in terms of planetary survival. The quest to ‘save the planet’ was so urgent, so all encompassing, so shared, it was above politics, beyond ‘left or right’.

In 1969 another set of images from the first successful landing on the moon appeared on television screens all over the western world. And then in 1972 and the final manned Apollo space mission the image of the earth known as ‘blue Marble’ emerged. This image according to Cosgrove came to symbolise human unity (Cosgrove 2001, p. 260). These images also served to symbolize, but also heighten anxieties at the time that had begun to emerge in 1950’s about resource scarcity, overpopulation
and the future of life itself on the planet. And, as Eckersley notes they ‘…marked the emergence of a deeper appreciation of the global dimensions of environmental degradation and the common fate of humanity (Eckersley 1992, p. 12). Hence, we see emerging what Ross refers to as ‘one-worldism’, a perspective that ‘…helps to desocialize – ‘there is no where else to go’ – any further analysis of the material causes and effects of environmental deterioration on the ground’ (Ross 1994 p. 289).

‘Environment’ as planet or globe effectively de-spatialized and de-politicised’ what had been experienced as ‘local’ effects of industrialisation and cast them as global in nature. It is in effect the ‘astronaut’s view, taking in the entire globe at one glance (Sachs 1992, p. 17).

At the time stories abounded about a future of resource scarcity, overpopulation, misery and starvation, encapsulated in apocalyptic metaphors like Carson’s ‘Silent Spring’ (1962), Boulding’s ‘Spaceship Earth’ (1965), with more to follow like Ehrlich’s ‘The Population Bomb’ (1968) and Hardin’s ‘Tragedy of the Commons’ (1968) and lifeboat allegory (1974 : all examples, along with Limits to Growth (1972), of what Pepper (1984) labelled Neo-Malthusian thinking and Dryzek (2005) ‘Survivalism’. While Carson’s text warned that use of pesticides would lead to a dystopic ‘silent spring’ due to the death of birds, Boulding described the earth as a spaceship:

Earth has become a space ship, not only in our imagination but also in the hard realities of the social, biological, and physical system in which man is enmeshed. In what we might call the "old days," when man was small in numbers and earth was large, he could pollute it with impunity, though even then he frequently destroyed his immediate environment and had to move on to a new spot, which he then proceeded to destroy. Now man can no longer do this; he must live in the whole system, in which he must recycle his wastes and really face up to the problem of the increase in material entropy which his activities create. In a space ship there are no sewers (Boulding 1965, p.1).

Boulding’s message was clear; the earth was finite, ‘…a tiny sphere, closed, limited, crowded, and hurtling through space to unknown destinations’ (Boulding 1965, p.1). Reflecting the anxiety at the time about ambitions to reach the moon and of the arms race Boulding argued:

… we are wasting our intellectual resources on insoluble problems like unilateral national defense and on low-priority achievements like putting a man on the moon. This is no way to run a space ship (Boulding 1965, p.1).
He also voiced contemporary concerns about population growth because if ‘we’ were to avoid a dictatorial political system or a centrally planned economy then:

There must... be machinery for controlling the total numbers of the population; there must be machinery for controlling conflict processes and for preventing perverse social dynamic processes of escalation and inflation. One of the major problems of social science is how to devise institutions which will combine this overall homeostatic control with individual freedom and mobility (Boulding 1965, p.1).

Concerns about population growth were a major preoccupation of the 1960’s and 1970’s\(^\text{14}\) and the fact that humanity could ultimately ‘abandon earth’ (Boulding 1965, p.1). Who was included, or excluded on the spaceship was a subtext that would continue to haunt environmentalists and their stories for at least the next decade. For Hardin, space was ‘no escape’ (Hardin 1968, p. 1243). Other commentators, including Hardin drew heavily on the work of Thomas Malthus, and in particular the concept of exponential growth, and the dark side of Malthus was also not entirely absent. In the first edition of the *The Ecologist* Magazine, Michael Allaby for instance argued that, ‘The trouble with Thomas Malthus is that he was right’ (Allaby 1970, p. 24) and in his seminal article ‘Tragedy of the Commons’ (1968) Hardin argued for a change in human values and morality because there was no technical solution to the population problem. Drawing on both Malthus and Lloyd he argued the tragedy of the commons was the result of each individual ‘rational being’ pursuing their own self interest at the expense of the collective. The end result of each of these individual decisions was ‘ruin’:

Ruin is the destination toward which all men rush, each pursuing his own best interest in a society that believes in the freedom of the commons. Freedom in a commons brings ruin to all (Hardin 1968, p. 1244).

In order to avoid the ‘tragedy of the Commons’ humanity needed to relinquish the ‘freedom to breed’ (Hardin, 1968, p. 1246). In the opening to his 1974 essay ‘Living in a Lifeboat’ which built on ‘The Tragedy of the Commons’, Hardin pondered the use of metaphors:

No generation has viewed the problem of the survival of the human species as seriously as we have. Inevitably, we have entered this world of concern through the door of metaphor’ (Hardin 1974, p. 1).

\(^{14}\) At the time that these commentators were writing world population was about 3.5 billion. 40 years later, in 2010, world population has almost doubled to 7 billion. See http://www.census.gov/ipc/www/popolclockworld.html
And because metaphors were so central to environmental discourse at the time he argued for the replacement of the spaceship metaphor with that of a lifeboat, suggesting the possibility of a new storyline. The spaceship metaphor he argued was based around an ethics of sharing, without responsibility – a situation that would lead to the tragedy of the commons or ‘suicide’. Lifeboat ethics, on the other hand, acknowledged the fact that the carrying capacity of the earth had been exceeded and that no amount of distributive justice – in the form of immigration or food aid to developing countries could overcome this.

In his apocalyptic book *The Population Bomb* first published in 1968, Paul Ehrlich reiterated these predictions and argued that, “The battle to feed all of humanity is over (Ehrlich 1971, p. xi). Unable to avoid mass starvation humanity had no choice but to regulate the numbers of human beings before ‘our planet is permanently ruined’ (Ehrlich 1971, p. xii). For Ehrlich the planet was ‘dying’ because there were simply too many people and the world could wait, do nothing and face the inevitable ‘death rate solution’. Ehrlich describes three possible scenarios or stories about future possible worlds – the ends of the road. In the first scenario by the mid 1980’s climate change had led to massive food shortages, food rationing, riots, and then finally nuclear war. Scenario two tells the story of a global pandemic that reduced the worlds population by at least 1.12 billion, including half of the worlds children by 1974, and the final scenario, the most appealing of the three, is set somewhere far into the future. It details measures taken in 1978 to redistribute food to underdeveloped countries and the establishment of a World Commons Control System to regulate internationally, overpopulation, resources and the environment. In this story these measures did not stop one billion people from dying from starvation, and hence Ehrlich concluded that despite the decisions being ‘the most heart-rending mankind as a whole has been forced to make; their memory has infused our species with a determination that such dilemmas will never again have to be faced’ (Ehrlich 1971, p. 77). While the direst of Ehrlich’s predictions have not been realised some of the central ideas in his message have endured –biophysical limits expressed in terms of carrying capacity, finitude, a small planet. Ehrlich’s proposals (because stories of catastrophe always sit side by side with stories of hope or control) involved amongst other things the establishment of ‘drastic’ policies to bring America’s population under control via a system of penalties and rewards (Ehrlich 1971, p. 130).
Once America had its ‘house in order’ he proposed denying food aid to those countries that were ‘so far behind in the population-food game that there is no hope that our food aid will see them through to self-sufficiency’ (Ehrlich 1971, p. 147).

While Hardin and Ehrlich focussed on overpopulation as the root cause of the environmental crisis (Ellis 1995), other commentators like Commoner, argued that the problem, and hence the solution lay elsewhere. In his book The Closing Circle (1971) Commoner challenged both Hardin and Ehrlich arguing that their focus on a single cause of the environmental crisis would lead to ‘barbarism’ and political repression (Commoner 1971, p 214). Describing the ecosphere as a ‘machine’ Commoner argued that the cause of the environmental crisis lay in the application of linear thinking rather than in terms of ecological cycles:

Environmental degradation largely results from the introduction of new industrial and agricultural production technologies. These technologies are ecologically faulty because they are designed to solve singular, separate problems and fail to take into account the inevitable “side-effects” that arise because, in nature, no part is isolated from the whole ecological fabric (Commoner 1971, p. 193).

For Commoner the environmental crisis, which he described as a ‘crisis of survival’, was inextricably linked to issues of social justice and poverty. Highly critical of ‘ecological crusaders’ who failed to take this into account he argued:

To resolve the environmental crisis, we shall need to forgo, at last, the luxury of tolerating poverty, racial discrimination, and war. In our unwitting march towards ecological suicide we have run out of options. Now that the bill for the environmental debt has been presented, our options have become reduced to two: either the rational, social organisation of the use and distribution of the earth’s resources, or a new barbarism (Commoner 1971, p. 296).

So here once again we have a choice between alternative futures the difference being in the definition of the ‘cause’ of the ecological crisis. And again, along with the mass of scientific data used to support his claims, Commoners book was based on a narrative that began with:

…the ecosphere, the setting in which civilisation has done its great-and terrible-deeds. Then it moves to a description of some of the damage we have done …by now such horror stories of environmental destruction are familiar, even tiresome. Much less clear is what we need to learn from them, and so I have chosen not to shed tears for our past mistakes than try to understand them. Most of this book is an effort to discover which human acts have broken the circle of life, and why (Commoner 1971, p. 13).
The ‘solution’ for Commoner lay in identifying ‘why we have come to our present predicament and where the alternative paths can lead’ (Commoner 1971, p. 298). This was a cause for optimism but that understanding would require more than identifying a singular fault and developing a specific plan, a blueprint or a clever scheme’. It would require change on such a scale that it would ‘change the course of history’ (Commoner 1971, p. 300).

For all of these commentators ‘humanity’ could not continue on its current trajectory without confronting global collapse. What was needed was a vision of the future that not only avoided catastrophe but also provided some hope and stability. One publication that attempted to do this was Blueprint for Survival, a manifesto for a sustainable society published in 1972 by The Ecologist. The introduction to the Blueprint begins once again with a choice between alternative futures:

The principle defect of the industrial way of life with its ethos of expansion is that it is not sustainable. Its termination within the lifetime of someone born today is inevitable – unless it continues to be sustained for a while longer by an entrenched minority at the cost of imposing great suffering on the rest of mankind. We can be certain, however, that sooner or later it will end (only the precise time and the circumstances are in doubt), and that it will do so in one of two ways: either against our will, in a succession of famines, epidemics, social crisis and war; or because we want it to – because we wish to create a society which will not impose hardship and cruelty upon our children – in a succession of thoughtful, humane and measured changes’ (The Ecologist 1972, p. 2).

Industrialisation and continued economic growth are here seen as the ‘root’ cause of the environmental crisis and the alternative, a stable society, can be realised if the ‘right’ choices are made and for which ‘the rewards will be as great as the penalties for failure’ (The Ecologist 1972, p.5). To not make this choice would result in catastrophe,’against our will’. The impacts of industrialisation and economic growth manifest in population growth and resource consumption, both of which, the authors argued, are growing exponentially. The end result: ‘failure of food supplies and the collapse of society’ (The Ecologist 1972, p. 3). Here disorder is associated with the continuation of industrialisation and economic growth, and order can be restored through change based on thoughtful and humane decision-making, in response to, ‘the dawning recognition of the earth as a space ship, limited in its resources and vulnerable to thoughtless mishandling’ (The Ecologist 1972, p. 5). The intention of the blueprint was to outline a strategy for change:
… to create a society which is sustainable and which will give the fullest possible satisfaction to its members. Such a society by definition would depend not on expansion but on stability. This does not mean to say that it would be stagnant—indeed it could well afford more variety than does the state of uniformity at present being imposed by the pursuit of technological efficiency. We believe that the stable society, the achievement of which we shall discuss in the next chapter, as well as removing the sword of Damocles which hangs over the heads of future generations, is much more likely than the present one to bring the peace and fulfilment which hitherto have been regarded, sadly, as Utopian (The Ecologist 1972, p.6)

The edition proposed a shift from an expansionist society to a stable society based on the following:

The principal conditions of a stable society—one that to all intents and purposes can be sustained indefinitely while giving optimum satisfaction to its members—are: (1) minimum disruption of ecological processes; (2) maximum conservation of materials and energy—or an economy of stock rather than flow; (3) a population in which recruitment equals loss; and (4) a social system in which the individual can enjoy, rather than feel restricted by, the first three conditions (The Ecologist 1972, p.8).

Change would be led by an ‘open style of Government’ which would inspire the ‘trust and the cooperation of the general public’ (The Ecologist 1972, p. 8). This would involve decentralisation of political power as a precondition for ‘full public participation in decision-making’ because the ‘larger the community the less likely this can be’ (The Ecologist 1972, p. 14). Self-regulating and self-sustaining small communities were also seen as the antidote to ‘individualism’ and consumerism. And in a clear statement of the storylines of decline versus control, or despair versus hope (Stone 2002, see introduction) the manifesto ends with the hope for future generations that ‘…the legacy of despair that we are about to leave them may at the last minute be changed to one of hope’ (The Ecologist 1972, p. 22).

And so alongside stories of collapse and decline there existed stories of hope and these stories were presented as a choice between alternative futures, one dystopian the other utopian. This choice was also clearly expressed in the highly influential report *Limits to Growth*, also published in 1972. In this report the authors used a computer model ‘of the world’ to track five major trends of global concern—accelerating industrialization, rapid population growth, widespread malnutrition, depletion of non-renewable resources, and a deteriorating environment (Meadows, Meadows, Randers, and Behrens, 1972 p. 21) and while the team accepted it was ‘imperfect, oversimplified and unfinished’ the report concluded...
that based on current trends the limits to growth will be met sometime in the next 100 years unless ‘the
world’s people’ alter these trends and ‘…establish a condition of ecological and economic stability that is
sustainable far into the future’ (Meadows, Meadows, Randers, and Behrens, 1972 p. 24). Only a
’sanitised world model’ would avoid ‘overshoot’ and ‘collapse’.

To argue that *Limits to Growth* was alarmist is an understatement. It begins with the following citation
from the Secretary General of the United Nations:

I do not wish to seem overdramatic, but I can only conclude from the information available to
me as Secretary-General, that the Members of the United Nations have perhaps ten years left in
which to subordinate their ancient quarrels and launch a global partnership to curb the arms race,
to improve the human environment, to defuse the population explosion, and to supply the
required momentum to development efforts. If such a global partnership is not forged within the
next decade, then I very much fear that the problems I have mentioned will have reached such
staggering proportions that they will be beyond our capacity to control (U Thant 1969, cited in
Meadows, Meadows, Randers, and Behrens, 1972 p. 17).

That so many things were potentially ‘out of control’ is pertinent as is the use of the language of global
partnerships. The foreword argued that ‘…the major problems facing mankind are of such complexity
and are so interrelated that traditional institutions and policies are no longer able to cope with them, nor
even able to come to grips with them (Meadows, Meadows, Randers, and Behrens, 1972 pp. 9-10).

According to the authors, what was required was a ‘global strategy because the task could not be left to
individual nations:

…whether due to the selfishness of individual countries that continue to act purely in their own
interests, or to a power struggle between the developing and developed nations. The world
system is simply not ample enough nor generous enough to accommodate much longer such
egocentric and conflictive behaviour by its inhabitants (Meadows, Meadows, Randers, and

In the report ‘The World’ was given a choice. Either continue on its current path and face local crises,
disasters, disintegration, economic decay, overshoot and collapse or choose a path leading to global
equilibrium, stability, survival; all of which would require ‘…a supreme effort of understanding,
imagination, and political and moral resolve’ (Meadows, Meadows, Randers, and Behrens, 1972 pp. 193).

Here stories of decline exist and give moral force to the story of hope.
Importantly, all of the commentators cited above were scientists and academics and their books were often best sellers (Ignatow, G 2007, p. 23). Hardin, for instance, was Professor of Human Ecology, University of California, Ehrlich, a Professor of Population Studies at Stanford University, Boulding was an Economist, Commoner a Zoologist and the Limits to Growth team were a group of researchers from MIT. Accredited as ‘scientists’ and ‘scientific’, all rely on metaphors to emphasize their message thus bridging the gap between the discourse of science and the discourse of morals, or the ‘world’ understood ‘as is’ to ‘as if’ (Harre, Brokmeier and Mulhausler 1999, p. 46) and perhaps more importantly, as it should be.

Images of a fragile earth from space that graced the covers of countless magazines and books at the time served to reinforce these stories of immanent collapse and recast them as global in nature. Other images conveyed similar messages based around the storylines of hope or despair. The cover of the 22nd February 1970 *Time Magazine* for instance depicted two side by side images of these alternative futures, superimposed over Barry Commoner’s face with the lead article titled ‘Fighting to Save the Earth From Man’.

Given little choice, mobilisation did happen and the first Earth Day in America on March 21, 1970, often described as the birth of the modern environmental movement, was celebrated by 20 million Americans. On that day Americans from all walks of life mobilised and teach-ins were held on University Campuses all over America. The impetus came, not from the grass-roots, but from a United States Senator, Gaynor Nelson, seeking to draw on the lessons learnt from anti-Vietnam war protests to mobilise (or distract) the general population (see Figure 5.2). As the Senator responsible noted in his biography:

> …if we could tap into the environmental concerns of the general public and infuse the student anti-war energy into the environmental cause, we could generate a demonstration that would force this issue onto the national political agenda (Nelson, Campbell and Wozniak 2002, p. 7).

The appeals to a ‘common’ threat and calls for unity to ‘save the earth’ did at the time attract some criticism not only from industry and business but also from those in the counterculture movement who
were concerned more with questions of social equity, with politics and with the Vietnam War. For instance, ‘Earth Day’ was described by the left-leaning editors of *Ramparts* magazine as ‘obscene’. For them the ‘officially sanctioned’:

…Environmental Teach-in comes pre-packaged; a well-paid and well-staffed national office sends local organizers an official brochure which avoids mentioning the social and economic environment with which Mother Nature has to cope (*Ramparts* 1970, p. vii).

What these authors were objecting to was that Earth Day organisers adopted methods from Vietnam anti-war protesters, that it was conceived by a US senator, and even worse was funded and supported by corporations. Those who supported Earth Day were seen as naïve. As one article in the Magazine titled ‘The Eco-establishment’ argued:

... go and talk to an environmental activist, a Survival Walker. Ask him why the ecology movement has turned its back on Vietnam and civil rights and he’ll explain, with a convincing freshness the old New Left has lost, that the sky is falling. He’ll point out that we all have to breathe and that none of us – white or black, Vietnamese peasant or American marine – has much of a future on CO₂. We all must eat, and a diet of pesticides is deadly. We all need water, and the dwindling supplies are unfit for human (or even industrial) consumption. We all depend on the same limited forests, mines, oceans and soil, and we are all going to choke on the same waste and pollution.

To this new ecology activist, nothing could be more obvious: we’ve all got to unite behind the overriding goal of unfouling our common nest before it’s too late, turning back the pages of the environmental doomsday book. If we succeed, then we can get back to these other questions. There is no stopping, he will add, an idea whose time has come.

He will be right too-though a bit naïve about where ideas come from and where movements go. Environment *will be* the issue of the ’70’s, but not simply because the air got thicker or the oceans less bubbly, or even because the war in Vietnam got too bloody to have to think about every day. It will be the issue of the ’70’s because such stewards of the nation’s wealth as the Ford Foundation, with its Resources for the Future, Inc. (RFF), and Laurance Rockefeller’s Conservation Foundation needed a grass-roots movement to help consolidate their control over national policymaking, bolster their hold over world resources, and escalate further cycles of useless economic growth (*Barkley and Weissman* 1970, p. 15).

One particular anecdote stands out from the first Earth Day; a story recounted in *Ramparts* but also in *The Closing Circle* where students at San Jose State College in California buried a brand new car as a symbol of environmental rebellion. The event was, however, picketed by black students who believed the money spent on the car would have been better spent improving conditions in poor black communities (see *Commoner* 1971, p. 207). What these critics were alluding to was the de-politicizing effects of not
only Earth Day, but in the calls to ‘save the planet’ that were so central to environmentalism in the 1970’s.

However, objections like these were not enough. Given the urgency of the messages the policy response at the time was swift and as Mink notes, ‘Earth Day was immensely successful in bridging gaps amongst people of different races, political beliefs, and cultures, as the threat of pollution was recognised as everyone’s problem (Mink 2010, p. 148). Beginning with the U.S. National Environmental Protection Act in 1969 and then throughout the 1970’s environmental legislation was enacted in countries all around the globe in an effort to reduce or at least mitigate impacts on the ‘environment’. Most of this legislation involved end-of-pipe solutions and importantly, and not surprisingly, all had as a central foundation provisions to ensure public participation (Paehlke 2005 p. 31)). It also became a central platform, again not surprisingly, in discussions about sustainable development that emerged at the UN Conference on the Human Environment that took place in Stockholm in 1972. By this stage the agenda had been set. ‘We’ were all in this together, there was no escape and no-where else to go, so ‘we’ needed to all work together.

5.2 Sustainable Development

While the word ‘sustainable’ had a great deal of currency in the environmental literature of the early 1970s it carried with it connotations of being ‘against’ industrialisation, consumption and growth. It’s linking with ‘development’ in ‘sustainable development’, not only transformed the meaning of the term, but also transformed the terms of the debate, leading to the marginalisation of previous discourses on sustainability (McManus 1996). Sustainable development became the key mobilising concept around which consensus and agreement could be reached. As Sharon Beder argues sustainable development is part of what she refers to as second wave environmentalism that, ‘heralds a new approach to tackling environmental problems’. For Beder first wave environmentalists … did not hesitate to blame industry, western culture, economic growth and technology for environmental problems’, while second wave environmentalism attracted much broader support from governments, business and economists in the

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15 Environmental Impact Legislation is of course a case in point.
promotion of sustainable development’ (Beder, 1993, p. xi). This shift from sustainability to sustainable
development, led to sustainability being marginalised and ‘steered into the safe waters of sustainable
development, large conferences, quantification and technological experts’ (McManus 1996, p. 69). As
Fischer and Black note, sustainable development provided a ‘conceptual bridge to bring together
environmentalists and industrialists’ in ‘an effort to rescue and protect economic growth from its
environmental critics. Formulated in this way, the approach is a concrete expression of corporate
environmentalism’ (Fischer and Black 1995, p. xiv). Redclift, writing in 1987 using an equally critical
voice, describes sustainable development as a contradiction in terms. This contradiction results from
sustainable development being based on two opposing intellectual traditions, ‘one concerned with the
limits which nature presents to human beings, the other with the potential for human material
development which is locked up in nature’ (Redclift 1987, p. 199). For Redclift, the problem in
achieving sustainable development was, ‘related to the overriding structures of the international economic
system, which arose out of the exploitation of environmental resources, and which frequently operate as
constraints’ (Redclift, 1987, p. 199). Warning against relying on market forces to sustain our
environments (and here he was perhaps prophetic) he argued that, ‘Unless we are prepared to interrogate
our assumptions about both development and the environment and give political effect to the conclusions
we reach, the reality of unsustainable development will remain’ (Redclift 1987, p. 204). Redclift here
was clearly reflecting on the period between 1972 and 1987, a period when sustainable development had
emerged as an organising framework or meta-narrative that sought to integrate the divergent perspectives
that he alludes to. This period and this process began as mentioned above at the UN Conference on the
Human Environment that took place in Stockholm in 1972. And while the sense of urgency and of a
global or common future remained, the aim from the outset was to reach agreement so that priorities
could be established. Concerns about limits also lingered, and linger on, but reframed and depoliticized.

5.3 The UN Conference on the Human Environment

Fittingly, the theme of the Stockholm conference was ‘Only one Earth’ and it was the biggest UN
conference ever held with 112 nations represented. It was to be, ‘…the first International platform for
discussion and agreement on environmental problems’ (Elander and Lidskog, 2000, p. 31). One of the major outcomes of this conference was the ‘Declaration on the Human Environment’ that identified a fundamental human right to ‘...freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being’ and a consequent ‘...responsibility to protect and improve the environment for present and future generations’ (UNEP, 1972). This was a clear articulation of one of the central principles of what has become known as ‘sustainable development’: inter and intra generational equity. Principle 15 of the Declaration articulated the need for planning to be ‘...applied to human settlements and urbanization with a view to avoiding adverse effects on the environment and obtaining maximum social, economic and environmental benefits for all’ (UNEP, 1972). The Declaration also emphasized the compatibility of resource use and economic development given ‘rational management’ and ‘an integrated and coordinated approach to their development planning’ (UNEP, 1972). In a clear articulation of the story of decline and control the Declaration suggested that through:

...ignorance or indifference we can do massive and irreversible harm to the earthly environment on which our life and well being depend. Conversely, through fuller knowledge and wiser action, we can achieve for ourselves and our posterity a better life in an environment more in keeping with human needs and hopes (UNEP, 1972).

Here ignorance and indifference is juxtaposed with wisdom; massive harm with a better future, ‘despair’ or ‘hope’. So while the Declaration identified:

...growing evidence of man-made harm in many regions of the earth: dangerous levels of pollution in water, air, earth and living beings; major and undesirable disturbances to the ecological balance of the biosphere; destruction and depletion of irreplaceable resources; and gross deficiencies, harmful to the physical, mental and social health of man, in the man-made environment, particularly in the living and working environment (UNEP 1972)

The answer lay in economic development in order to ensure adequate food and clothing, shelter and education, health and sanitation for all of the world’s people. Achieving these mutually reinforcing goals – environmental protection and economic prosperity required ‘...the acceptance of responsibility by citizens and communities and by enterprises and institutions at every level, all sharing equitably in common efforts’ (UNEP 1972).
The significance of the Stockholm conference lay in the fact that environmental issues became internationalised, and this ‘…significance amounted to much more than just adding other countries to the environmental agenda. It signified that the agenda and the route to solutions required global as well as localized and regionalized perspectives’ (Pugh 1996, p. 137). Other major conferences followed in the 1970s, along with a number of important reports released during the 1980s, including *North-South: A Programme for Survival* (the Brandt Report), in 1980, a follow-up *Common Crisis* in 1983 and *Our Threatened Future* (the Palme Report) in 1982. The term ‘sustainable development’ was, however, first used formally in the *World Conservation Strategy: Living Resource Conservation for Sustainable Development*, or the World Conservation Strategy.

5.4 The World Conservation Strategy

Prepared by the International Union for the Conservation of Nature (IUCN), in cooperation with the United Nations Environment Program (UNEP) and World Wildlife Fund (now World Wide Fund for Nature) the World Conservation Strategy defined Sustainable Development as:

...The modification of the biosphere and the application of human, financial, living and non-living resources to satisfy human needs and improve the quality of life. For development to be sustainable it must take account of social and ecological factors, as well as economic ones; of the living and non living resource base; and of the long term as well as short term advantages and disadvantages of alternative actions (IUCN, 1980).

The definition highlighted the need to take into account ecological, social and economic factors if development was to be sustainable along with the requirement for short and long term planning and the need to be cautious or the precautionary principle along with the need to overcome the opposition between conservation’ and development. The Strategy argued that for too long ‘conservation’ and ‘development’ had been seen as incompatible and this was one of the main obstacles to achieving conservation. The Strategy therefore stressed the interdependence of development and conservation, particularly in overcoming world poverty. Addressed specifically to National Governments the *World Conservation Strategy* called for worldwide action and global solidarity (IUCN 1980), identified priority conservation issues, policy guidelines and a framework for the development of national and sub national
conservation strategies. The purpose of the strategies was ‘...to stimulate appropriate action, to raise public consciousness, and to overcome any apathy or resistance there might be to taking the action needed’ (IUCN 1980). As a consequence they were seen as:

...means, not ends in themselves. But the process by which they are forwarded is itself usually of value, as it can inform and educate, develop participation in and support for decision making, change attitudes, and help to foster a conservation ethic (IUCN 1980).

This identified need for the involvement of the entire world community along with the need to integrate environment and development later became the cornerstone of one of the key documents to promote the ideal of sustainable development: *Our Common Future*.

5.5 Our Common Future

With the publication of World Commission on Environment and Development report *Our Common Future* in 1987 the concept of 'sustainable development' entered into common usage (Redclift 1996; Wackernagel and Rees 1996). As McManus points out while the term was not invented by the WCED, it was popularized and given much official credibility (McManus 1996, p. 50). *Our Common Future* had its origins in 1983, when the United Nations established the World Commission on Environment and Development to develop 'A global agenda for change'. Specifically the Commission was asked:

- To propose long-term environmental strategies for achieving sustainable development by the year 2000 and beyond;
- To recommend ways that concern for the environment may be translated into greater co-operation among developing countries and between countries at different stages of economic and social development and lead to the achievement of common and mutually supportive objectives that take account of the interrelationships between people, resources, environment, and development;
- To consider ways and means by which the international community can deal more effectively with environmental concerns; and to help define shared perceptions of long-term environmental issues and the appropriate efforts needed to deal successfully with the problems of protecting and enhancing the environment, a long term agenda for action during the coming decades, and aspirational goals for the world community (WCED 1990, p. xiii).
Common, mutually supportive and shared perceptions would form the basis of aspirations for the whole-of-the-world community after what the report saw as a decade of decline in global cooperation (WCED 1990 p. xv).

The report defined 'Sustainable Development' as follows:

Humanity has the ability to make development sustainable - to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs. The concept of sustainable development does imply limits - not absolute limits but limitations imposed by the present state of technology and social organization on environmental resources and by the ability of the biosphere to absorb the effects of human activities. But technology and social organization can be both managed and improved to make way for a new era of economic growth. The Commission believes that that widespread poverty is no longer inevitable. Poverty is not only an evil in itself, but sustainable development requires meeting the basic needs of all and extending to all the opportunities to fulfil their aspirations for a better life (WCED, 1990, p.8).

This definition clearly articulates the link between economic growth, environment and society. Environment and development are defined as follows:

...the environment is where we all live and development is what we all do in attempting to improve our lot within that abode. The two are inseparable (WCED, 1990, p. xv).

From the World Commission’s perspective the need to relieve world poverty required a new era of economic growth; one that must be based on policies that sustain and expand the environmental resource base (WCED, 1990, p. 1). Many forms of economic development, the report argued, erode environmental resources leading to environmental degradation that can in turn undermine economic development.

The report, therefore, asserted that development must be both environmentally sustainable and equitable and that while there were biophysical limits to economic growth, with foresight these limits can be addressed using technology:

Growth has set no limits in terms of population or resource use beyond which lies ecological disaster. Different limits hold for the use of energy, materials, water, and land. Many of these will manifest themselves in the form of rising costs and diminishing returns, rather than in the form of any sudden loss of a resource base. The accumulation of knowledge and the development of technology can enhance the carrying capacity of the resource base. But ultimate limits there are, and sustainability requires that long before these are reached, the world must
ensure equitable access to the constrained resource and reorient technological efforts to relieve the pressure (WCED 1990, p. 89).

In *Our Common Future* ‘sustainable development’ is all encompassing by attempting to link resource use, resource distribution, economic development, and social equity within a framework of biophysical limits. The whole ‘world’ becomes part of the agenda for change to avoid ‘ecological disaster’. The opening paragraph of the report is telling and demonstrates how it drew on earlier environmental discourses and transformed them by re-framing them within the need for management and greater control:

From space, we see a small and fragile ball dominated not by human activity and edifice but by a pattern of clouds, oceans, greenery and soils. Humanity’s inability to fit its doings into that pattern is changing planetary systems, fundamentally. Many such changes are accompanied by life-threatening hazards. This new reality, from which there is no escape, must be recognised – and managed (WCED 1990, p. 1).

The report’s message was not, it claimed, based on a story of decline nor was it ‘a prediction of ever increasing environmental decay, poverty, and hardship in an ever more polluted world among ever decreasing resources’ but rather that its message was framed as a story of hope and of control, where ‘…people can build a future that is more prosperous, more just and more secure’ (WCED 1990, p. 1). The story of decline lurked in the background as an alternative dystopian future if global action was not taken.

One of the major causes of the three interlinked crisis identified in the report (the environmental crisis, the development crisis and the energy crisis) was fragmented and compartmentalized decision-making. As an example, the report argued that in focusing on environment, environmental ministries place emphasis on after the fact repair giving the false impression that they are able to protect and enhance the environmental resource base (WCED, 1990, p. 9). There was therefore, an identified need for institutional change – towards more integrated, less compartmentalised decision making and a shared storyline. There was also a need for ‘popular participation’ (WCED 1990, p. 9).

The report posed the question - How are individuals in the real world to be persuaded or made to act in the common interest? The answer lays partly in education, institutional development and law enforcement:
All would be better off if each person took into account the effects of his or her acts upon others. But each is unwilling to assume that others will behave in this socially desirable fashion, and hence all continue to pursue narrow self-interest. Communities or governments can compensate for this isolation through laws, education, taxes, subsidies, and other methods. Well-enforced laws and strict liability legislation can control harmful side effects. Most important, effective participation in decision-making processes by local communities can help them articulate and effectively enforce their common interest (WCED, 1990, 91).

In this re-telling of the ‘tragedy of the commons’ the task of implementing sustainable development does not rest with government alone, but through local communities ‘enforcing their common interest’ through ‘effective participation’ in decision making. In her analysis of the report Rydin examines how the notion of a ‘common’ interest is constructed rhetorically, arguing that the metaphors employed within the document are quite specific:

…I drew parallels for the environment with a home for the family or habitat for a species. These invite personal association, the identification of the reader with the broader issues being discussed. But further, such metaphors make disagreement and an emphasis on conflict more difficult. Everyone knows that families can be sites of conflict but their use as metaphors in an exhortatory, normative discourse, such as this, is meant to highlight the positive, nurturing side of family life, the family as safe haven (Rydin, 2003, p. 7).

According to Rydin other rhetorical devices in the text emphasised this appeal to commonality while playing down the existence of conflict or competition including synecdochic reasoning, where the argument makes a leap from focussing on a specific group to a conclusion about humanity; ethos where the characterisation of the speaker is one of leadership, speaking to and for all people in a visionary manner, the use of the first-person plural and finally the use of metonymy in which ‘people’ and ‘planet’ are used interchangeably (Rydin 2003, p. 8-9).

This idea of a shared vision or storyline of the future also encapsulated in the appeal to ‘Our Common Future’ is seen as one of the major outcomes of the WCED; a vision and storyline that has been since supported at other international forums including the Earth Summit in 1992. It also represented a shift in the way in which ‘development’ was understood, as McGranahan, Jacobi, Songsore, Surjadi, and Kjellen (2001, p. 3) note:
In promoting ‘sustainable development’, the Brundtland Commission attempted to redirect the development agenda and create consensus around a more unifying goal. Rather than attempting to replicate Western affluence globally, the common goal should be to meet the needs of the present without compromising the ability of future generations to meet their own needs (McGranahan, et al 2001, p.3).

In doing so the Report attempted to transcend political boundaries between East and West, North and South in the Cold war era and was thus ‘apolitical’ in nature. The vehicle to achieve consensus was dialogue ‘…as if sustainable forms of development would best emerge from education, enlightenment and information’ (Macnaghten and Urry 1998, p. 215).

Because of the emphasis on commonality and agreement the need for ‘public’ participation is seen as central to the achievement of sustainable development. Who precisely that public is and what form that participation will take is rarely specified. There is a focus instead on processes of harnessing public support rather than an emphasis on who should or could be involved. The use of the first person plural, so entrenched in sustainability discourse means that ‘we’ all should be involved and so non involvement becomes a matter of concern; awareness raising and education the primary tools to ensure compliance. Democracy and environmental protection are therefore taken to be mutually reinforcing. As Lafferty and Meadowcroft put it :

Democracy and enhanced environmental protection have been taken to be self-mutually reinforcing, a perspective which is particularly marked in the emphasis on ‘participation’ to be found in the large body of documentation emerging from international bodies such as UNCED, UNDP, UNEP and UNESCO (Lafferty and Meadowcroft 1996, p. 2).

However they go on to add that ‘…the relationship between democracy (viewed as a social decision procedure) and good environmental practice (understood as a substantive outcome) is far from straightforward’ (Lafferty and Meadowcroft 1996, p. 2).

Nonetheless the agenda was clear and Our Common Future called for the United Nations to commit itself to preparing a Universal Declaration on the rights and responsibilities of nations and later a convention on environmental protection and sustainable development (WCED, 1987, pp. 376-377). This led to what
has become known as the Earth Summit or the United Nations Conference on Environment and Development (UNCED), which was held in Rio de Janeiro, Brazil in June 1992.

5.6 The United Nations Conference on Environment and Development

Based on principles derived from the Brundtland Report five documents/statements were produced for the Earth Summit. These were The Rio Declaration on Environment and Development, Agenda 21, Statement of Forest Principles, Framework Convention on Climate Change and The Convention on Biological Diversity.

The aim of UNCED was to achieve formal agreement by world leaders to an agenda for environmental action and to launch international agreements that would ultimately be legally binding. At the time perhaps the most important document to be ratified at the Earth Summit was Agenda 21, an action plan on sustainable development for the global community ‘...to be taken globally, nationally and locally by organizations of the United Nations System, Governments, and Major Groups in every area in which human impacts on the environment’ (United Nations Division for Sustainable Development, 1999).

Like Our Common Future, Agenda 21 promotes the idea of a ‘global partnership’ for sustainable development at all levels - international, national and with a particular emphasis on the role of local government. In claiming this, the report argued:

Because so many of the problems and solutions being addressed by Agenda 21 have their roots in local activities, the participation and cooperation of local authorities will be a determining factor in fulfilling its objectives. Local authorities construct, operate and maintain economic, social and environmental infrastructure, oversee planning processes, establish local environmental policies and regulations, and assist in implementing national and subnational environmental policies. As the level of governance closest to the people, they play a vital role in educating, mobilizing and responding to the public to promote sustainable development (United Nations Division for Sustainable Development, 1999, Section 28.1).

Consensus building and consultation by local government is seen as the vehicle for ‘educating, mobilizing and responding’ and the outcome of the process would be a Local Agenda 21. This process is seen as a dynamic programme that will evolve over time in the light of changing needs and circumstances.
and ‘...marks the beginning of a new global partnership for sustainable development’ (United Nations Division for Sustainable Development, 1999).

At one level the promotion of consultation and consensus building as articulated in Agenda 21 suggests that sustainable development is negotiable at the local level and that the outcome would be ‘locally’ relevant while reflecting ‘sustainable development’ as a goal of the ‘global’ community. This link between the local and the global is also encapsulated in the catchcry ‘Think Globally, Act Locally’. Such a position is based on the assumption that if given the opportunity to participate local communities will act in what is seen as the best interests of the ‘global’ environment. ‘They’ would accept the storyline as the only possible path forward into the future. The focus on local government as the site of implementation has been described by Marvin and Guy as the ‘new localism’ (Marvin and Guy 1997) a perspective that provides a more ‘comforting story’ to counter the ‘gloomy predictions’ and ‘dire warnings that came to dominate discussions about the ecological future’ (Marvin and Guy 1997, p. 311).

The ‘new localism’ is based on the argument that:

… environmental policy initiatives at the local level will effectively deal with the ecological chaos of today by creating a more rational future with local government leading the development of more sustainable communities, life and work styles. In this way cities will regain political leverage by reconstructing a new form of transformative local governance around the environmental agenda (Marvin and Guy 1997, p. 311).

And while such a vision or storyline is indeed ‘comforting’, it is as Marvin and Guy argue, based on six myths, understood as ‘...narratives that concretely frame the way in which environmental problems are conventionally viewed (Marvin and Guy, 1997, p. 312). The myths or narratives that Guy and Marvin challenge as a way of ‘identifying what we miss by clinging to them (Marvin and Guy, 1997, p. 312) are concerned principally with the role of the local and local government in facilitating the shift towards sustainability. They also express concerns with the focus on behavioural change, data collection and on the design and form of localities, all of which have become the cornerstones of attempts to implement sustainability both globally and locally. All rely according to Guy and Marvin on an oversimplified idea of social change based on partnerships and the development of shared goals. But what are these shared goals? These are perhaps best represented in the most recent articulation of what sustainable development means at the global level; the Johannesburg Declaration on Sustainable Development and
The Johannesburg Plan of Implementation which were agreed to by world leaders at the World Summit on Sustainable Development in 2002.

5.7. The World Summit on Environment and Development

As the following discussion demonstrates there are clear links with Our Common Future and the Earth Summit Documents. The opening paragraph of the Plan of Implementation begins by reaffirming a commitment to the Rio principles and Agenda 21. In both the Plan of Implementation and the Declaration, sustainable development was defined in terms of ‘...the interdependent and mutually reinforcing pillars of sustainable development – economic development, social development and environmental protection – at the local, national, regional and global levels’ (Strachan et al, 2005, p. 238). So the need for integrated rather than compartmentalised thinking that was first articulated in Our Common Future was reaffirmed in Johannesburg. So too was the need to eradicate poverty and the centrality of equity within and between generations, or intra and inter generational equity. This was expressed in the Johannesburg Declaration as a commitment to ‘...building a humane, equitable and caring global society, cognizant of the need for human dignity for all’ (Strachan et al, 2005, p. 238). The Declaration also identified the ever increasing gap between rich and poor, and between the developed and the developing world as a major threat to global sustainability, along with globalisation, biodiversity loss, diversification, natural disasters and climate change. And so the overarching objectives, or essential requirements for sustainable development were listed in the declaration as ‘...poverty eradication, changing consumption and production patterns and protecting and managing the natural resource base for economic and social development’ ((Strachan et al, 2005, p. 239).

In order to achieve these objectives the Declaration urged ‘...the promotion of dialogue and cooperation among the world’s civilisations and peoples, irrespective of race, disabilities, religion, language, culture or tradition’ (Strachan et al, 2005, p. 239). And in paragraph 21 which suggests the need for distributional equity the Declaration recognised ‘...the reality that global society has the means and is endowed with the resources to address the challenges of poverty eradication and sustainability confronting all humanity’. It declared that, ‘Together, we will take extra steps to ensure that these
available resources are used to the benefit of humanity’ (Strachan et al, 2005, p. 240). This suggests that lack of availability of resources is more a distributional issue than a material one.

Singled out for special consideration in the Declaration were children, women and indigenous people so that they could also be included in the process and it identified the duty and accountability of business and corporations to contribute to the goals of sustainable development. These goals were reiterated in the Plan of Implementation from the World Summit on Environment and Development produced at Johannesburg which stated that:

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\text{We recognize that the implementation of the outcomes of the Summit should benefit all, particularly women, youth, children and vulnerable groups. Furthermore, the implementation should involve all relevant actors through partnerships, especially between Governments of the North and South, on the one hand, and between Governments and major groups, on the other, to achieve the widely shared goals of sustainable development. As reflected in the Monterrey Consensus, such partnerships are key to pursuing sustainable development in a globalizing world ((Strachan et al, 2005, p. 177).}
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Global partnerships, from *Our common Future* to Johannesburg, are therefore seen as being central to implementation of the ‘widely shared goals’ of sustainable development involving not only governments but including business, NGO’s, even the most ‘vulnerable groups’ in both the North and the South all are major participants in sustainable development. This language of inclusion so central to the discourse of sustainable development suggests that ‘anyone’ can and should participate and as Dryzek notes one of the most successful ‘discursive repositionings at the World Summit on Sustainable Development in 2002 was the confirmation of business as a major participant in sustainable development, ‘not as a source of problems to be overcome’ (Dryzek, 2005, p. 150). But this global partnership included everybody, not just government or business and the goal was no less that to ‘…save our planet, promote human dialogue and achieve universal prosperity and peace (Strachan et al, 2005, p. 241). And so according to the Declaration ‘we urgently need to create a new and brighter world of hope’, a future that sits in contrast to ‘…the indignity and indecency occasioned by poverty, environmental degradation and patterns of unsustainable development’ (United Nations Division of Sustainable Development 2002).

The focus at the World Summit on Sustainable Development was on implementation of the 1992 Earth Summit documents with a focus on how to integrate the three components of sustainable development –
economic development, social development and environmental protection, but with a particular emphasis on poverty and social concerns. It reiterated the need for integration, or integrated thinking, social equity, including the eradication of poverty, a reduction in resource use and consumption, and the establishment of partnerships, dialogue and citizen participation. These were clearly the boundaries around how discussions ought to proceed and it presented like other documents before it clear choices between a future of hope or a future of despair.

What the preceding discussion begins to demonstrate is that while sustainable development is a broad and complex term and that ‘It is an inescapable, global imperative’ (Yearley, 1996, p. 133) there are clear boundaries around what the term should mean in practice. The question often posed is how implementation should proceed rather than what it should mean on the ground in specific places; a question that is rarely raised. The following discussion looks very briefly at the way in which the concept has been interpreted in Australia as a way of foregrounding the discussion in the following chapters. This has been done for a range of reasons not least because the case study that forms the basis of this thesis is an Australian one, but also because it reveals the way in which the discourse has found expression in a particular place. The discussion reveals what the ‘rules of engagement’ are within sustainable development discourse and traces similarities and shifts in the way the concept could be spoken and written about in Australia.

5.8 The Australian Response : Ecologically Sustainable Development

In response to Our Common Future and in the follow up to UNCED the Australian Government established working groups on Ecologically Sustainable Development (ESD) in June 1990 with the task of providing advice on future policy directions on sustainable development and to develop practical proposals for implementing them. These working groups were made up of representatives from government, industry, environmental groups, union, welfare and consumer groups.

The Definition of ESD adopted by the working groups was:-
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 (Australian Government 1992).

Development is defined as 'Development which aims to meet the needs of Australians today, while conserving our ecosystems for the benefit of future generations (Australian Government 1992).

The Strategy's central concern is developing ways to use environmental resources that not only maintains but improves their range, variety and quality (Australian Government, 1992: 6). Environment and economy are seen as inextricably linked and therefore any 'threat' to the environmental resource base also threatens the economy. Resources are to be used to generate employment and develop industry (Australian Government 1992 p.6) and therefore in order to 'protect' industry and employment ‘we’ must preserve our resource base. Key words that emerge are those of resource, management, monitoring, review, assessment, participation and environment.

The Strategy is presented as the culmination of a consensual process that involved adapting sustainable development to fit the Australian context. One of the main modifications to the concept was the addition of ecology. This shift puts the emphasis firmly on the management of the resource base that represents a narrowing of the discourse away from key issues such as poverty and social justice which were so central in Our Common Future. As McManus notes the terminology of Ecologically Sustainable Development is unique to Australia, a focus he put down to the power of the major environmental groups in Australia in the early 1990’s (McManus 2005, p. 73) but may also be because of Australia’s position as a major resource producer. Other commentators, more cynically suggest that the ESD process was an attempt ‘…to use the 1987 Brundtland Report and its interpretation of the concept of sustainable development, to tame the ecocentric orientation of the environmental debate by drawing the movement’s key NGOs into a framework of negotiated solution-making (Christoff and Low 2000, p. 250), or as Papadakis suggests the Australian Federal Government used the process to reduce conflict amongst interest groups (Papadakis 2000, p32).

The focus on environment as resource base was evident in the way in which the consultation process was undertaken. Working groups were established around 'key' industry sectors that included agriculture,
mining, energy production, energy use, forest use, fisheries, tourism, transport and tourism. Beder (1993) has argued although the Strategy claimed to have been developed 'through extensive consultation' (Australian Government, 1992, p. 12) the process was far from representative. The ESD working groups were dominated by bureaucrats, particularly from development orientated departments (Beder 1993). Two environmental groups were represented, along with representatives from unions, consumer/social welfare organizations and industry. One day public forums held in each capital city, a public attitude survey involving approximately 2,400 and the opportunity to comment on draft reports represented the 'public consultation' phase (Beder 1994, p. 38).

Yet the ESD strategy required the 'participation of every Australian' (Commonwealth of Australia 1992, p. 10) with implementation of the strategy dependent on 'informed community participation' and 'community understanding and action' (Commonwealth of Australia 1992, p. 104). ESD related information exchange and education were central to this process. As part of its appeal to consensus, women and indigenous peoples are included in the strategy as categories needing special consideration. The 'challenge' was 'to ensure full participation by Aboriginal and Torres Strait Islander peoples in community progress towards ESD' (Commonwealth of Australia 1992, p. 82) and 'to develop ESD-related policies, programs and actions which incorporate the particular concerns of women, while ensuring that actions to achieve ESD do not have inequitable effects on women' (Commonwealth of Australia, 1992, p. 84). What this consideration seems to entail is educating these groups about ESD, so that they become involved and possibly converted to the process.

Despite the quick uptake of the rhetoric as some commentators have argued the central issues have been expelled ‘…to the margins of politics’ (Low, Gleeson, Elander and Lidskog 2000, p. 300). There has been a 'widespread failure of government policy to integrate the goal of ecological sustainability with that of economic development, particularly with respect to urban development. According to Christoff and Low ‘the impact of the Rio Earth Summit has been negligible’ (2000, p. 261; see also Papadakis 2000). So as Papadakis notes while the uptake of sustainable development was quite quick in Australia, since the publication of the National Strategy there has been a decline in commitment to ESD principles.
5.9 Conclusion

Sustainable development as a concept is therefore all encompassing. Global in scope, the concept provides a vehicle for integrating social, ecological and environmental concerns within one broad framework or metanarrative. Framed in terms of inclusion, urgency and limits the promise of sustainability is of a ‘common’ shared future or a story of hope where the threat of catastrophe or decline has been brought under the control. Because of its breath the term has been increasingly adopted by industry, business, government and non governmental organisations as a way of speaking about the future allowing diverse interests to engage in and contribute to the unfolding storylines. The dominant vehicle for delivering this future is a discursive one where through dialogue and the involvement of everyone, everywhere “Our Common Future’ will be assured.

The following chapter considers how this framing is reflected in a specific discourse about the sustainability of cities. I examine the storylines that are dominant in sustainable city discourse and consider how these adhere to, or sit in contrast to the broader discourse around sustainability and sustainable development.
Sustainable City Storylines

6.0 Introduction

In the previous chapter, I identified the dominant storylines that currently demarcate or frame sustainability discourse both globally and in Australia. Global in reach, the language of sustainability and sustainable development framed in terms of inclusion, urgency and limits, I argued suggests that the quest to shape a future, ‘Our Common Future’ must involve the whole of humanity in a united effort. The discourse is framed around two alternative storylines about the future – one of decline and one of control both of which can be linked back to earlier environmental discourse. In this chapter I consider how this framing is reflected in a specific discourse about the sustainability of cities. I examine the storylines that are dominant in sustainable city discourse and consider how these reflect the broader discourse around sustainability and sustainable development. In doing so I attempt to explain why there is such a level of consistency in the way in which sustainable cities are spoken and written about globally. What becomes evident in the discussion is that, as is the case for the broader sustainability and sustainable development discourses, sustainable city discourse can be understood as a narrative or narratives about the future of cities globally that, ‘underwrite and stabilize the assumptions for decision making in the face of high uncertainty, complexity, and polarization (Roe, 1994 p. 2). As a result key terms so central to sustainable city discourse, because of their complexity and uncertainty and polarization, remain relatively undefined.

One of the key terms is sprawl. Sprawl has in fact become synonymous with ‘unsustainability’ even though, as a number of commentators have noted, the term is not only difficult to define and describe, it is nowhere near as recent a phenomenon as those who oppose sprawl would have us believe (Bruegmann 2005). What is ‘new’ about the use of the term sprawl is the way in which it has entered into popular dialogue to signify and to explain a plethora of contemporary urban ills as diverse as inequity, obesity, loss of green spaces along with isolation and loneliness. Sprawl is almost always portrayed as both consumptive and destructive and sits in contrast to its alternative the compact, sustainable city that is equitable, healthy, environmental friendly, lively and vibrant. And so the overriding focus in sustainable city literature is on changing the form of cities from sprawling to compact as a way of delivering ‘sustainable’ outcomes. This is in spite of a
growing acknowledgement that the claimed sustainability benefits of compact city form are not as straightforward or as certain or singular as supporters would have us believe (Hall 2001; Holcombe and Staley 2001; Williams, Burton and Jenks 2000, p. 2, Jenks and Jones, 2010). European Cities are often held up as exemplar because of their historically compact form which sit in contrast to cities in Australia, America and Canada (Beatley 2000; Newman and Kenworthy 1999; Morris 2005) a position that demonstrates not only a particular blindness to urban development patterns occurring beyond the central tourist areas of these cities (Richardson and Change-Hee 2004, p. 7; see also Bamford, G 2004, Kolb, 2008), but also to the socio-political contexts within which they emerged (Fishman 1987). More importantly, however, what is left out of many of these discussions is a consideration of the social equity implications of the compact city simply because they do not sit neatly within the sprawl/not sprawl dichotomy. Social benefits arising from compact city strategies are often simply assumed. Those who oppose the sustainability claims of compact city supporters often do so with a simple reversal of the binary, equating compact with crowding or cramming and loss of green space. However, this simple reversal does very little to reduce the complexity of the issues involved, nor does it lead to a broadening of the terms of the debate. What is offered instead is the opposite. Both positions overlook the socio-political contexts that gave rise to different urban forms through time and in different places which – whether compact or sprawling – have always involved acts of exclusion, alienation and often injustice (Fishman 1987).

Because of the focus on sprawl all suburbs and fringe areas are considered to be the same – monotonous, sprawling or at risk of being engulfed by sprawl. Understood simply in terms of sprawl versus containment, what can and should be considered ‘sustainable’ and a city has in fact already been decided. This not only reduces complexity it also negates other ways of theorising what a sustainable city is or could be, not for some but for all. As Kirkman puts it:

Everyone knows, or thinks they know, what sprawl is, and most people disapprove of it just as they disapprove of injustice or dishonesty. Who could possibly be in favour of such things? In the same way, everyone approves of a higher quality of life, more security, more freedom, and more of particular things like green space. Again, who could possibly be opposed to such things? (Kirkman 2010, p. 110).

For Kirkman the choice between two alternative spatial futures sets up a false dichotomy that represents a failure of imagination:
…a failure, that is, to imagine there might be many other ways of configuring our environment to support our various projects. A better response to the either-or choice might be: Neither (Kirkman 2010, p. 127).

The overriding focus on the spatial layout or form of cities as a way of ensuring ‘efficiency’ also narrows the possibilities for broader involvement in discussions. As Blowers and Pain have pointed the privileging of spatial/ecological aspects reflects a ‘narrow ecological modernisation perspective that does not challenge existing social, economic and political frameworks’ (Blowers and Pain 1999, p. 296). For these commentators, attention needs to be given to the ‘more complex and unwelcome understandings of the unsustainability of cities’ rather than rely on ‘simplistic technological and physical determinism’. In particular issues of social inequality need to be addressed:

The ‘Sustainable City’ can only be constructed if the processes of urban planning and governance are able to respond to the wide-ranging and competing interests that constitute the (unsustainable) spatial relations of cities. Such response would necessarily have to confront the issue of inequality head on (Blowers and Pain 1999, p. 296).

The following chapter begins by examining key terms and concepts in sustainable city discourse and considers how they are defined, contested but also deployed. What stands out is that despite claims about the need for a new and visionary approach the discourse around sustainable cities whether under the banner of New Urbanism, Green Urbanism, Smart Growth or even ecocities is remarkable for its familiarity, consistency and repetition. As Jenks and Dempsey point out in discussions over the density of cities, ‘Despite their current currency, the debate is strangely familiar’ (Jenks and Dempsey 2005, p. 298):

…most of the arguments now in vogue had been made decades ago, namely for urban containment, compact forms, efficient use of land, a mix of building types, and proximity to facilities, transport and work. Yet, despite the familiarity, there is something new. The arguments for compact forms and higher densities in the 1990s and the present decade are promoted in terms of sustainability (Jenks and Dempsey 2005, p. 300).

6.1 Defining the sustainable city

Pick up any book or article on sustainable urban development from anywhere in the world and it will almost certainly contain a discussion about the sprawl versus compact city debate. This debate, according to
Breheny can be usefully summarized, ‘…by classifying stances initially into two groups: ‘decentrists’, who favour urban decentralization, largely as a reaction to the problems of the industrial cities; and ‘centrists’, who believe in the virtues of high density cities and decry urban sprawl’ (Breheny 1996, p. 13). And while the debate is ‘tending to favour heavily one solution’ (Breheny 1996, p. 13) it has a long history that tends to, but should not be ignored. Usually presented as a choice between two future ways of life, the litany of the effects of sprawl and the supposed benefits of controlling the city through containment strategies have a remarkable consistency across the globe (Breheny 1996; Whitehead 2003). And even though research throughout the 1990’s suggested that the relationships between urban form and other sustainability benefits were unsubstantiated or dependent on a range of other variables more significant than urban form (McLoughlin 1992, Breheny, 1996, p. 13; Williams, Burton and Jenks, 2000, p. 7), along with arguments that the focus on urban form is deterministic (McLoughlin 1992) and the claimed benefits of the compact city reflect a romantic ideal of village life (Troy, 1992, 1996), because of the apparent urgency the compact city has been ‘hastily’ implemented across the globe (Breheny, 1996 p. 13). The ‘compact city’ is described by Jones and Jenks as the ‘dominant paradigm’ in the UK, finding expression in Government urban policy throughout the 1990s both in the UK and Europe. It also found and continues to find expression in the U.S. reflected in New Urbanism and Smart Growth initiatives. All of these policy initiatives advocate similar things, ‘…urban forms that are higher than previous densities with mixed uses which are contained in order to reduce travel distances and dependence on private transport, as well as being socially diverse and economically viable’ (Jenks and Jones 2010 p. 2). Similar initiatives resonate beyond the western world where the same ideas have been taken up by countries where the urban context is entirely different (Jenks and Jones 2010, p. 3). Reflecting on the Australian condition, Davidson (1997) has noted arguments for consolidation are not place specific nor do they take into account the unfolding of the Australian experience of suburban development. Sprawl, smart growth and new urbanism are instead what Gleeson refers to as imported US totems (Gleeson 2008, p. 2654).

And so as Whitehead (2003) has noted despite considerable debate over the extent and severity of the socio-ecological problems facing urban areas ‘…there does appear to be a considerable degree of consensus over how the international political community should address the complex hybrid of social, economic and ecological problems which face urban areas (Whitehead, 2003, p. 1184). He identified a focus in
contemporary research on the practical implementation of sustainable development as a policy goal, and the lack of analysis of the sustainable city as an object of political contestation and struggle (Whitehead, 2003, p. 1184). Focussing on implementation of sustainable urban development has tended to reduce it “…to a technical matter of institutional restructuring, traffic management, architectural design and the development of green technologies” (Whitehead, 2003, p. 1187) around which there is a great deal of International consensus suggesting that ‘…either the process of defining sustainable development has been completed or that it can no longer proceed at the conceptual level but must be achieved through specifying it, preferably quantitatively (Myerson and Rydin, 2004, p. 101).

The equation of the compact city and sustainability is, as pointed out by Guy and Marvin, ‘extremely seductive’, demonstrated by:

…its popular support in the research community, and its rapid translation into the policy arena. However, even its proponents…recognise to differing degrees that there are considerable difficulties assessing the validity of the environmental claims made of the compact city’ (Guy and Marvin 2007, p. 294).

The idea or ideal of the compact city simplifies ‘a complex and continually unfolding topic’ (Guy and Marvin 2007, p. 294) and represents only one facet of the debate. It does, however serve to stabilize the assumptions for decision makers and consequently because it sits in opposition to ‘suburban sprawl’, landuse patterns described and represented in this way are derided. So ‘seductive’, is the ideal of a more compact urban form that it has been rapidly adopted around the globe, not only by national and sub-national governments but also by the United Nations Human Settlements Program. The 2009 Global Report on Human Settlements argued that ‘sprawl’ was the predominant spatial trend in most cities and endorsed ‘The compact mixed-use and public transport-based city’…[as] generally more environmentally sustainable, efficient and equitable (United Nations Human Settlements Programme 2009, pp. 209-210).

In the 2000s these ideas have also found expression in the development of ‘ecocities’, or stand alone models of sustainable cities – including Dongtan in Shanghai, along with Masdar and Ras al Khaima in the United Arab Emirates, - which tick all of the boxes in terms of edging towards zero carbon emissions but which run the risk of becoming ‘eco-theme parks …salving the conscience, and freeing the neighboring cities to
continue usual development’ (Jenks and Jones 2010, p. 5). Joss has observed, in the second half of the 2000’s, ecocities ‘…appear to have become something of a global mainstream phenomenon’ (Joss 2010, p. 240). In his article ‘Ecocities: A Global Survey 2009’ he asked what distinguishes ecocities from ‘normal’ cities (Joss 2010, p. 240). Dating the emergence of the ecocity concept in the 1980’s he noted it’s mainstreaming, in terms of policy uptake and practical implementation beginning in the mid 2000’s. His research identified 79 ecocity initiatives globally and three quarters emphasized technological innovation as a means of realizing ecocity development, just under a quarter took a more holistic approach emphasizing the integration of social and ecological aspects of development and the remaining few (three) focused on civic empowerment and community involvement. Key factors driving the ecocity phenomenon identified included the demand for a policy response to climate change threats, rapid urbanization and the need to revitalize urban centres socio-economically by shifting away from old industries to new knowledge-based green technology and creative industries (Joss 2010, p. 248), but also and perhaps more telling ‘as a tool for branding and marketing a city as innovative and sustainable’ (Joss 2010, p. 248). This driver for sustainable city implementation has previously been noted by O’Riordan and Church who asked has sustainability simply been captured as a marketing tactic to ‘sell’ the image of cities with little claim to either equity or environmental care (O’Riordan and Church 2001, P. 12).

Equating compact city form with sustainability is based on ‘advocacy rather than research’ according to Jenks and Jones (2010, p. 1-2) who noted a lack of evidence based explanation, prediction and theory about:

... the extent to which urban form as a whole contributes to sustainability. Many of the issues in this complex field interact and conflict. There may be many trade-offs and compromises to achieve advances in sustainability and to satisfy users and residents (Jenks and Jones 2010, p. 10).

And it is precisely the complexity, the conflict, the tradeoffs and the compromises that advocates of the compact city overlook or render invisible. The compact city is instead promoted by conjuring up images of it’s opposite: the sprawl.

6.2 Defining Sprawl
In the introduction to his book *Sprawl: A Compact History* Bruegmann attempts to summarize how the impacts of sprawl are understood in contemporary America:

Once an arcane term used primarily by city planners and academics, “sprawl” has recently emerged as part of everyday speech. Most often described as unplanned, scattered, low-density, automobile-dependent development at the urban periphery, sprawl now shares space on the covers of national new magazines with perennial “big” issues like health care and race relations and it has become a prominent issue on talk shows and campaign trails. From every direction Americans are bombarded by the messages of anti-sprawl reformers. They are told that sprawl threatens to destroy open space, consume agricultural land, drive up utility costs, undermine urban social life, heighten inequalities, deplete natural resources and damage the environment. And, by the way, it is ugly (Bruegmann 2005, p. 2).

What has been written about sprawl, according to Bruegmann, ‘has been devoted to complaints’ (Breugmann 2005, p. 3) and while the focus of most analysis has generally been on how damaging sprawl is and how to stop it, Bruegmann also identifies that there has been a great deal of difficulty in defining the term in the first place. Sprawl is, for Bruegmann, a cultural concept that has, ‘accumulated around it an entire body of ideas and assumptions’ (Bruegmann 2005, p. 3). Having entered into popular usage the word sprawl reads almost like a mantra for all that is wrong with American cities without necessarily referring to any particular place or condition. Nor does it take into account changes through time. Instead it is almost always been understood in the negative. It is a term that:

…has always conveyed a not-so-subtle accusation against the way other people choose to live their lives. Most people don’t believe that they live in sprawl. Sprawl is where other people live, the result of other people’s poor choices. It implies that cities that sprawl and, by implication, the citizens living in them are self-indulgent and undisciplined (Bruegmann 2005, p. 18).

So it is not me, nor here, nor this place but always someplace and someone else. So given the lack of definition why is it that so many people continue to agree that sprawl is bad and its alternative – the compact city or smart growth is ‘good’? As Bruegmann goes on to suggest:

…individuals and groups using the word “sprawl” have actually been describing quite different landscapes, and they have neglected others that might logically be included under this rubric. Far from being a defect … the difficulty in defining sprawl has been one of the chief reasons the term has proved so useful to reformers. It has allowed for the creation of a large coalition of individuals who agree they are against sprawl but who actually don’t agree on much else (Bruegmann 2005, pp. 4-5).

And so as Gillham points out ‘… descriptions of sprawl vary from simple portrayals of a transitional landscape to more suggestive characterizations of wholesale destruction of the nation’s farms and forests
(Gillham 2002, p. 3). And while he is at pains to develop a workable definition of the term drawing on a range of sources he settles on the suggestive ‘a city without limits’ (Gillham 2002, p. 23).

Given that the term is used so broadly to refer to different landscapes and often different issues Bogart (2006) has suggested the views of the city expressed in arguments for new urbanism, and urban consolidation are fundamentally misguided (Bogart 2006, p. 4). He argues that cities are much more dynamic and complex than the simple equation sprawl/not sprawl would have us believe:

The modern metropolitan area is not a set of islands – downtown, neighborhood, edge city, empowerment zone – that can be neatly separated and analyzed. Rather, it is a complex web of relationships among these various places. People live in one place, work in another, shop in yet another, and enjoy recreation someplace else (Bogart 2006, p. 4).

Often described as a ‘war on sprawl’ (Flint 2006, p. 5), a ‘civic penalty’ (Putnam 2000) or a ‘fight’ (Chang-Hee 2004, p 277), a ‘battle’ (Chavan, Peralta and Steins 2007, p. 5), sprawl is also characterized as ‘evil’ (Beatley and Manning 1997, p. 28), or ‘banal, lifeless, endless’ (Giddings, Hopwood, Mellor and O’Brien 2005, p. 13) . But the emotion filled language does not stop there. Scenarios, often described as ‘visionary’, or ‘new’, or ‘smart’ are common in these discussions, usually organized around two storylines that fit neatly into Sharon Stone’s description of policy stories – stories of decline and control (Stone 2002). Examples of these are outlined below (Figure 6.1), which while by no means comprehensive, demonstrate the familiarity and continuity of these storylines not only over time but also from a range of different places. Because many of these scenarios are quite lengthy they have by necessity been abbreviated, but they still all contain a beginning, middle and end. What they all share in common is that they are presented as a choice between two alternatives, and while one choice promises a whole range of benefits that read almost like a wish list, the alternative, based on what are seen as current development patterns can only lead to decline and despair which of course, leaves no choice at all. One storyline is organized around a story of decline and the site of decline is clearly ‘low density’ ‘sprawling’ suburbs, which are not only wasteful they are also marginalizing, boring and unsustainable. The story of control, on the other hand, is based on the opposite or its reversal: the compact, vibrant and ‘sustainable’ city.

What we find in all of these scenarios or stories is that sprawl is always spoken about in the negative – the future we don’t want – while the alternative - the compact city always has positive connotations – the future
we want. The phenomena that the stories describe could be anywhere. They are not accounts of actually existing places but instead imagined spaces. As Healy has noted in his discussion

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**Sustainable City Storylines**

One path continues the status quo by simply projecting our current patterns of development into the future. This scenario is one of continuing to accommodate the march of low-density, auto-dependent, sprawling growth; facilitating the loss of natural landscapes that sustain us and other life on the planet; perpetuating our irresponsible patterns of waste and consumption; and witnessing the continuing decline in the bonds of community and the quality of our living conditions (Beatley and Manning 1997, 1). And the alternative is ’… one in which land is consumed sparingly, landscapes are cherished, and cities and towns are compact, vibrant and green. These are places that have much to offer in the way of social, cultural, and recreational activity, where the young and the old are not marginalized, and where there is a feeling of community, an active civic life, and a concern for social justice. In these communities the automobile has been tamed, many transportation options exist (including public transit and walking) and fundamental human mobility and freedom are enhanced. These are communities in which the economic base is viable as well as environmentally and socially restorative. This vision of place emphasizes both the ecological and the social, where quantity of consumption is replaced with quality of relationships. In short, the vision is about creating places citizens can be proud of-places of enduring value that people are not ashamed to leave to their descendants (Beatley and Manning 1997, 1-2).

Scenario A
The first response to the big oil crisis of 2007 was incredulity …People in the sprawling city decided to sit it out. Holidays were taken rather than commuting…people didn’t want transit…Months turned into years and the situation did not improve. People started leaving the city. Businesses began closing, with shopping malls in the outer areas being hardest hit. Poverty crept into the formerly affluent automobile-dependent suburbs. Real estate prices dropped month after month. Houses began to be abandoned. Those remaining in the suburbs became more and more isolated. Fear dominated their lives …After fifteen years of continuing decline, the once great sprawling metropolis was reduced to a mere shell.

Scenario B
The first response to the big oil crisis of 2007 was a series of local community-based meetings…A transit plan for the city, complete with local linkages and cycleways, was drawn up and released for public comment…Communities formed associations to provide more local social and recreational activities so that people did not need to travel so far…Community life grew as pedestrian street activity increased. Coffee shops took over whole streets; artist workshops replaced parking lots…After five years …Concerns about density had been overcome by creative designs and the sheer desire for the community to get back together again…After fifteen years there are hardly any discussions about the fuel crisis, but a few people reflected on how different the experience could have been (Newman and Kenworthy 1999, pp 65-67).

...our story is about the Dream’s nightmare twist. It is not so much about sensible “smart” growth – patterns of development that are environmentally and economically sustainable, and socially equitable – as it is about, to put it bluntly, dumb growth. It is about landscapes lost, traffic congested, air and water polluted, public health endangered and a potential energy crisis…Our story is also about economic waste, rising taxes, and the unfair burdens that dumb growth places on taxpayers and governments. And it is about the consequences for those left behind as we place more and more of our investment and energy in new places …Ours is not, however, a story about villains. The only perpetuators are ourselves. And, we have allowed this to happen only because, until recently, we have known no better (Benfield, Raimi and Chen 1999, pp. 1-2).

Gradually we are beginning to realize that our growth patterns are destroying our cherished landscapes. On top of its impact on farm and forest lands, low-density, sprawling growth has destroyed the beauty of our communities, made congestion worse, and forced our citizens to pay higher and higher taxes to meet the demands for sprawl-supporting infrastructure …Smart growth is also about choosing not to grow in some places-the open spaces we value for their beauty, agricultural productivity, and ecological function (Benfield 2001, pp. viii-x).

Sprawl is enabled by car travel …A different path is to strive to make people the quality-of-life imperative in our cities, and ecosystems the imperative in outlying areas (Nozzi 2003, p. 63).

...more and more Americans are beginning to recognize that sprawl is not such a great place to live after all. This realization has fostered the emergence of an architectural and development movement called New Urbanism that began in the mid-1980’s as a way to sway developers from building car dependent subdivisions, and inspire them to create people-friendly narrow streets, houses with front porches, multi-use buildings, and a variety of homes in each development for every income level…New Urbanism is the vanguard in helping to recreate genuine communities in America (Morris 2005, p. 39).

...sprawl-the spread-out development of separated subdivisions, office parks, malls and strip shopping centers growing beyond existing cities and towns-has thwarted public transit development, separated rich and poor, caused unnecessary travel, consumed fragile land, and generated excessive public expenditures. On the other side of the discussion, some believe that sprawl is as American as apple pie and that citizens are getting what they want: single-family homes on large lots, safe communities with good school systems, unrestricted automobile use, and metropolitan locations far from the pace and problems of urban areas (Burchell 2005, p. 2).
Clustered, pedestrian-friendly, transit-orientated communities are the key to reducing automobile dependency…Social solutions can penetrate to the ultimate problem of automobile dependence. New Urbanism focuses on changing priorities in physical planning to ensure non-auto infrastructure; changing land use patterns to minimize the need to travel; and changing lifestyle values so that greater emphasis is on community rather than private isolated values (Roseland 2005, pp. 144-145).

...density is critical to the mission of smart growth and New Urbanism. More people have to accept density if new development patterns are ever going to work...Density gives us amenities, affordability, community, and economic vitality… sprawl gives us isolation and social stratification and hours wasted stuck in traffic (Flint 2006, pp. 191-192).

While Americans have largely enjoyed unprecedented prosperity during the period of suburbanization, continued growth has created many challenges …Chief among these growing problems is traffic congestion. Along with a dramatic decrease in mobility, the clogged roads and highways have contributed to an increase in air pollution. In addition, concerns ranging from the dwindling supply of land for housing, the loss of agricultural land and open space, increasing economic inequity and social isolation, and even the growing epidemic of obesity have all been blamed on the typical landscape of urban sprawl…As a solution …Smart growth advocates for land use patterns that encourage walking, biking, and the use of transit, that are compact, and that offer a mix of residential and commercial uses. …by using land more efficiently (increasing density) building homes, offices, stores and parks within close proximity to one another (mixing uses); and linking development with transportation infrastructure cities can continue to accommodate growth (Chavan, Peralta and Steins 2007, p. 3).

...now is the time to permanently rein in sprawl. We use the umbrella term “sustainability” to describe four major movements in the United States: (1) smart growth (also referred to as growth management), (2) new urbanism, (3) green development, and (4) renewable energy. Through the use of these four interconnected techniques, America can become a better place to live, with clean air, walkable quality communities and more vibrant cities and suburbs, replacing our deficient infrastructure, reducing our impact on global warming, and creating millions of jobs through new industries for renewable energy and a sustainable environment (Freilich, Sitkowski and Mennillo 2010, p. 11).

Sprawl is a pattern of growth characterized by an abundance of congested highways, strip shopping centers, big boxes, office parks, and gated cul-de-sac subdivisions – all separated from each other in isolated, single-use pods. This land-use pattern is typically found in suburban areas, but also affects our cities, and is central to our wasteful use of water, energy, land, and time spent in traffic. Sprawl has been linked to increased air and water pollution, greenhouse gas emissions, loss of open space and natural habitat, and the exponential increase in new infrastructure costs. Social problems related to the lack of diversity have been attributed to sprawl, and health problems such as obesity to its auto-dependence. In contrast, complete communities have a mix of uses and are walkable, with many of a person’s daily needs – shops, offices, transit, civic and recreational places – within a short distance of home. They are compact, so they consume less open space and enable multiple modes of transportation, including bicycles, cars and mass transit. A wide variety of building types provides options for residents and businesses, encouraging diversity in population. This mix of uses, public spaces, transportation, and population makes complete communities economically, socially, and environmentally sustainable (Tachieva 2010,p.1)

of the use of the terms ‘suburb’ and ‘suburbia’ in Australia, these imagined spaces function to project and displace ‘...a vast array of fears, desires, insecurities, obsessions and yearnings’ (Healy 1994, p. xiii). But these imagined spaces are far from benign, they also form and are formed by ‘the literal space of the suburb’ (Healy 1994, p. xiv). All of the scenarios focus on the need to change the form of cities, to order what is seen as being disordered, and once this is done then other benefits will, it is assumed, simply follow. In a simple equation sprawl is understood as ‘low density’ and so in order for cities to become more sustainable, and community orientated, they need to become denser. But what this gesture overlooks is the fact that the concept density is not as clear-cut as these scenarios would have us believe. As Jenks and Dempsey point out:

If sustainable development is so dependent on higher densities, then the question is higher than what, and what does it mean? Is there any link between the different physical forms implied by higher densities and what is claimed to be its benefits? Indeed, is density a meaningful concept when it comes to suggesting standards for development and the form it should take? (Jenks and Dempsey, 2005, p. 287).
How density is measured is extremely problematic, because as Jenks and Dempsey point out the methods used to measure density are largely incompatible and entirely relative. Should density be measured in terms of persons per hectare, dwellings per hectare, bed space per hectare, or floor space per hectare? (Jenks and Dempsey 2005, p. 293). A lot depends on the measurement employed but it is rarely articulated but is instead density is used rhetorically to suggest an ideal type of urban form that sits in opposition to low-density urban sprawl. Moreover, as Giddings, Hopwood, Mellor and O’Brien 2005 (p. 24) point out:

Urban density is cited as a potential proponent of sustainability, offering opportunities for increased energy savings and reducing the need to travel. What is missing is the political question of how such a strategy could be implemented (Giddings, Hopwood, Mellor and O’Brien 2005, p. 24).

Car dependence and transport energy use is one of the key justifications for increasing urban densities. In a highly influential 1989 study Australian researchers Newman and Kenworthy argued that in order to reduce fuel consumption cities needed to become less automobile dependent by changing their form from low to high density. They drew their conclusions from empirical evidence about energy consumption and urban densities in 32 cities worldwide. Their research revealed that on an individual city basis transport energy consumption tends to increase as settlement moves away from inner city areas (Newman, P. and Kenworthy, J. 1989) and that those cities that 'sprawl' are characterised by high levels of transport energy use. On the basis of this data Newman, Kenworthy and Lyons identified 5 archetypical cities, based on the degree of automobile dependence and levels of fuel use. They are:

- Class 1 cities - Are very automobile dependent with almost no walking or cycling. They have very high gasoline use.
- Class 11 cities - Have high automobile dependence with a minor though significant role for public transport, walking and cycling. They have high gasoline use.
- Class 111 cities – Have moderate automobile dependence with public transport, walking and cycling having an important role. They have moderate gasoline use.
- Class IV cities – Have low automobile dependence. Public transport, walking and cycling are equal with cars. They have low gasoline use.
- Class V cities - Have very low automobile dependence, with public transport, walking and cycling more important than cars. Very low gasoline use.
In their analysis of Australian cities Melbourne is placed as a Class II city along with Sydney, while Perth and Brisbane are Class I cities (Newman, P., Kenworthy, J. and Lyons, T. 1990; 24-26). Analysis of transport data for Perth, Melbourne and Sydney also revealed a marked difference between inner, middle and outer suburbs with outer suburban areas using energy at levels approaching U.S. cities. This result led them to conclude for Australian cities that suburban growth should be curtailed and emphasis given to extending the inner city type development in the middle suburbs and around transit stations. The alternative (or opposite) to urban sprawl or low-density fringe development, is therefore the urban precinct and on the fringes the urban village characterised by high density living, public transport as the main form of transportation and a sense of 'community'. A central theme in this deterministic vision is the fact that if we remove the car from urban areas by living closer together then our cities will become 'sustainable', 'liveable', 'better' 'vital' 'lively' 'equitable' (Newman, P., Kenworthy, J. and Vintila, 1993). By implication low-density urban development is the opposite of all these things. Additionally, both implicitly and explicitly low-density urban development, particularly in the outer suburbs is seen as being the cause of car dependence, hence the attention to physical planning.

Building on this research further in *Cities and Automobile Dependence : An International Source Book* (1990) Newman and Kenworthy argued that the 'human attractiveness of the city centre is significantly and negatively correlated with the amount of automobile dominance in the city’ (Newman and Kenworthy, 1990, p. 83). What becomes clear, however, is that their measure of human attractiveness is a subjective one in which they rate 31 cities (excluding Moscow because they didn't go there) from best to worst in terms of their interpretation of human attractiveness. This rating is then correlated to gasoline use to arrive at the finding that human attractiveness is clearly linked to low transport energy use. And while the authors acknowledge that the rating is subjective the conclusions drawn from the data is offered as further ‘evidence’ of the authors’ main arguments. For Newman and Kenworthy increasing the density of cities is the only option for reducing fossil fuel use and ensuring 'sustainability' and so:

The individual city dweller has a key role to play and it is often ignorance or dare we say, selfishness on the individual's part that can be a key force in promoting less balanced cities. For example, it is not always easy for someone choosing to live on a half acre on the city fringe to understand why they can't also have a five minute bus service! They would not always see that their individual decisions to have two or more cars and live a rural lifestyle while still being dependent on
the city contributes to the congestion and environmental degradation in the rest of the city (Newman, Kenworthy and Lyons, 1990, p. 22)

Environmental degradation in the city (any city) is the result of a tyranny of ‘selfish’ automobile dependent decisions on the part of individuals to live in sprawling suburbs and on the urban rural fringe. In this way the authors quickly dispense with any broader discussion about equity, of politics, of the desirability of density or even the history of suburban expansion – in one seemingly self-evident conclusion the answer is not sprawl!

6.3 Sprawling Suburbs

Any outline of the history of suburban development or sprawl (or how ‘we’ got to be where we are) usually begins with an account of nineteenth century industrial cities and middle-class ‘flight’ to the suburbs. While in pre-modern western cities ‘…the core was the only appropriate and honorific setting for the elite, … urban peripheries outside the walls were disreputable zones, shantytowns to which the poorest inhabitants and the noisome manufactures were relegated’ (Fishman 1987, p. 6), beginning slowly in ad-hoc fashion this basic understanding began to be challenged. As Fishman argues:

Suburbia …was the collective creation of the bourgeois elite in late eighteenth century London. It evolved gradually and anonymously by trial-and-error methods. Wealthy London bankers and merchants experimented with a variety of traditional housing forms available to them to create an original synthesis that reflected their values. Suburbia was improvised, not designed. Its method of evolution paralleled that of the contemporaneous Industrial Revolution, then taking place in the north of England, which also proceeded by trail-and-error adaptation. In both cases one sense the power of a class with the resources and the self-confidence to reorder the material world to suit its needs (Fishman 1987, p. 9).

This ‘flight’ to the suburbs or the periphery of cities reflected changing economic conditions and social values, including the role of the family. It can also be seen as a reaction to conditions in eighteenth and nineteenth century industrial cities as a result of population growth and urbanisation. The emergence of suburbia in fact ‘…required a total transformation of urban values: not only a reversal of the meaning of core and periphery, but a separation of work and family life and the creation of new forms of urban space that would be both class-segregated and wholly residential’ (Fishman 1987, p. 8).

Suburbia, according to Fishman, emerged as ‘bourgeois utopias’ based on a ‘…”marriage of town and country” which is the mark of the ‘true’ suburb (Fishman 1987, p. 6). Gaining pace throughout the
nineteenth century in England and America the suburb emerged as a distinctly middle class phenomenon. At the same time the development of suburbs in Australia can be seen as a reflection of the Anglo American tradition but not necessarily the same values (Davidson 1997).

Towards the end of the nineteenth century and during the early twentieth century the benefits of expansion but also of compaction found expression in the work of utopian planners, including Ebenezer Howard, Le Corbusier and Frank Lloyd Wright. It was according to Breheny (1996) the most important period in the history of the debate about urban form, because ‘During this period the boundaries of the debate were mapped out’ (Breheny 1996, p. 14). The following discussion provides a broad overview of the work of these key designers and theorists as a way of demonstrating that key aspects of contemporary discussions about sustainable cities are not ‘new’ but also to highlight some of the pitfalls in relying on a simple equation – high density versus low density – to deliver a ‘better’, utopian urban future. As Harvey has noted for these theorist and those who followed them:

..the city is a thing that can be engineered successfully in such a way as to control, contain, modify, or enhance social processes. In the nineteenth century Olmstead, Geddes, Howard, Burnham, Sitte, Wagner, Inwin, all reduced the problem of intricate social processes to a matter of finding the right spatial form. And in this they set the dominant (‘utopic’) twentieth-century tone for either a mechanistic approach to urban form, as in the case of Le Corbusier, or the more organic approach of Frank Lloyd Wright (Harvey, 1996, p. 418).

Drawing on only three key theorists to represent a much broader debate could, of course, be seen as reductive but the aim here is not to provide an overview of the history of planning or of suburbia but rather to demonstrate synergies with contemporary debates, even if the ‘issues’ these theorists were reacting to may appear to be quite different (Hall 1988, p. 7). What is important to note is that all three proposed schemes were predicated on the idea that changing the form of a city would deliver a whole range of social benefits – democracy, equity, health – but also that Howard’s ideas in particular are often seen as facilitating the development of suburbs, or low density urban development in the twentieth century all over the western world. As Breheny argued, ‘...Howard ought to be regarded not as a centrist or decentrist but as a representative of the compromise position. However, others, most obviously Jane Jacobs, have cast him as a villainous decentrist; indeed as the villain (Breheny 1996, p. 14).
6.4 Garden cities: Ebenezer Howard

Writing at the end of the nineteenth century Ebenezer Howard was concerned about overcrowding in industrial cities, leading to depletion of people in country districts. Howard’s solution to the ills he associated with the industrial cities was essentially practical. He argued that there are not just two alternatives - town or country life, but a third alternative ‘...in which all the advantages of the most energetic and active town life, with all the beauty and delight of the country, may be secured in perfect combination’ (Howard 1965, pp 45-46). His ideas were set out in diagramatic form as the three magnets. (see 6.2). Two of the magnets summarize the advantages and disadvantages of town and the country while the third magnet based on a fusion of both town and country, was seen to have only the advantages with non of the disadvantages of either town and country alone. This was the garden city, or the ‘town country magnet’. The separation of town and country was Howard argued ‘ unholy’ and ‘unnatural’. In his writing ‘country’ is synonymous with ‘nature’ and his vision of the garden city, or the Town-Country magnet is seen as a marriage of town and country which addresses the problem of the separation of society and nature (Howard 1965, p. 47).

Figure 6.2: The Town Country Magnet
The town-country magnet represents a late nineteenth century version of the polarized debate that currently demarcates sustainable city discourse and so the advantages of the town model (or the magnet that attracted people to cities) included social opportunity, places of amusement, high money wages, well lit streets, but these were outweighed by the disadvantages: The closing out of nature, isolation of crowds, high rents and prices, excessive hours, unemployment, fogs and droughts, slums and gin palaces. The advantages of the country on the other hand were the beauty of nature — woods, meadows, forests, fresh air, low rents, abundance of water, bright, sunshine but again these were outweighed by the disadvantage: lack of society, hands out of work, distrust (as in trespassers beware), long hours, low wages, lack of amusement, no public spirit, crowded dwellings but deserted villages.

Howard’s proposal included the purchase of an estate of 6,000 acres that would be held in trust for the citizens of garden city. The aim of garden city was to address what Howard saw as the major social problems in both city and country in England. Rents from houses, from industry, from the agricultural land
and from shops were to be paid to a board of trustees who after having paid interest on the original mortgage were to hand the balance to the Central Council where it is used for the creation and maintenance of services like schools, roads, parks, etc. So while residents and business owners paid rent, the landlord was eliminated. Rents were collected and used for the community benefit.

Garden city would be at the centre of the 6,000 acres taking up an area of 1,000 acres surrounded by agriculture land, forests and institutions for the old, the sick, the orphaned and the infirm. The plan of the town is circular and symmetrical to ensure access for all. The whole of garden city would be circled by a railway and industry – to supply not only employment for the town but also goods. The proximity of the railway and industry would allow for easy transportation of goods away from the town while avoiding congestion in the centre of garden city. In terms of the agricultural produce one of the aims was to supply the townspeople with produce hence avoid the need to transport agricultural produce away from the town and to provide certainty for producers by placing producers and consumers in close proximity to each other.

In the centre is a garden of 5 acres and radiating out are six roads or boulevards dividing the town into six sections. The 5 acre garden is surrounded by public buildings town hall, library, hospital, museum. This is surrounded by central park – an 145 acre public park, with recreational grounds. Circling this is crystal palace a wide glass arcade where manufactured goods are sold there is a winter garden and a place to entice people into central park. The plan was circular for easy access so everyone was in close walking proximity to the parks, the gardens, the public buildings, to the woods and to industry. Beyond crystal palace was a zone of housing with gardens. Beyond that is a 420 feet wide Grand avenue– in this area are schools, churches. Further out, in the outer ring, are factories, warehouses, dairies, markets, coal yards, timber yards all separated or zoned away from the residential areas and beyond that is the green belt or agricultural land.

Figure 6.2: Garden City
The population of garden city would be 32,000 and once it had reached that size another city would be established – beyond the green belt (so that the new city could also have its own zone of country) but linked by rapid transit. And this is one of the enduring principles from Howards vision. He argued:

And this principle of growth-this principle of always preserving a belt of country round our cities would be ever kept in mind till, in the course of time, we should have a cluster of cities, not of course arranged in the precise geometrical form of diagram, but so grouped around a Central city that each inhabitant of the whole group, though in one sense living in a town of small size, would be in reality living in, and would enjoy all the advantages of, a great and most beautiful city; and yet all the fresh delights of the country-field, hedgerow, and woodland-not prim parks and gardens merely-would be within a very few minutes’ walk or ride. And because people in their collective capacity own the land on which this beautiful group of cities is built, the public buildings, the churches, the schools and universities, the libraries, picture galleries, theatres, would be on a scale of magnificence which no city in the world whose land is a pawn to private individuals can afford (Howard 1965, p. 142).

Howard described the garden city as an experiment and was careful to note that all of his drawings were diagrams only – it was a grand utopian scheme that was never built as it appeared. It was not just an experiment in designing a city though – it was also, for Howard, an experiment in how to improve the lot of people and how that could be funded. As in any utopia the citizens of garden city would be healthy, fit, free. But these benefits would extend beyond the township to London proper where because of the existence of garden city property values would fall, there would be less crowding, buildings and houses would be more
affordable. The slums would be cleared away and so the existence of many garden cities would improve the lot of people living in cities away from the garden cities.

Howard’s ideas attracted enough attention and financial backing to begin Letchworth Garden City in England and later Welwyn Garden City, which was started after World War I. The creation of Letchworth Garden City and Welwyn Garden City were then influential in the development of "New Towns" after World War II by the British government. This movement produced more than 30 communities, the last (and largest) being Milton Keynes. All were funded by the government and while drawing on Howard’s ideas of how the garden city should appear spatially, overlooked perhaps one of the most important aspects of his utopian scheme – community ownership. His ideas for the spatial layout of cities were influential in America, Australia and Germany as well – particularly in terms of zoning of industry, green belts and houses surrounded by gardens – the suburbs but what was lost was the political intent. Championed by Lewis Mumford and the Regional Planning Association of America from the 1920’s in America the garden city led influenced the development of a number of regional cities including the residential neighborhood of Sunnyside Gardens in Queens, New York, and the New Jersey town of Radburn. In Australia the garden city ideal was adapted and reinterpreted where the garden suburb ‘appears as that part of the garden city idea that transplanted most easily’ (Ward 1992, p. 22; see also Freestone 1989, 1992).

Howard’s ideal city was a totally planned city and for him the idea of the common good would be embodied in every detail of the plan including not only the physical layout but also revenue, and administration. But whose ideas of the common good were embodied in the plan? As Fishman (1987) points out Howard designed the garden city to promote the values he believed in – family life, contact with nature (in a very pastoral sense), and community. Commenting on this Jane Jacobs wrote that Garden cities were:

…really very nice towns if you were docile and had no plans of your own and did not mind spending your life among others with no plans of their own. As in all Utopias, the right to have plans of any significance belonged only to the planners in charge” (Jacobs 1965, p. 27).
In a critique that is surprisingly familiar Jane Jacobs advocated the creation of vibrant diverse cities through:

- High densities of population and activities
- A mixture of primary uses
- Small-scale, pedestrian friendly blocks and streets
- Retention of old buildings mixed with the new (Soule 2006, p. 34).

Jacob’s critique of Howard’s garden city ideal as both authoritarian and bland came to be applied to all approaches to utopian planning, including that of Frank Lloyd Wright and more particularly Le Corbusier. What is pertinent about all of these positions, including that of Jacobs, is that while they all focused on the changing the spatial layout of cities the political intent of all of these schemes differed quite markedly.

6.5 Broad acre city: Frank Lloyd Wright

A more extreme version of the decentralist position is represented in Frank Lloyd Wright’s Broad acre city. In Broadacre city there is the same rejection of the big city – namely New York and a rejection of big government (Hall 1988, p. 285). How he differs from Howard is his celebration of individualism as the cornerstone of democracy. For Wright:

When every man, woman and child may be born to put his feet on his own acres and every unborn child finds his acre waiting for him when he is born – then democracy will have been realised (Wright 1958, p. 127).

In Broadacre city decentralization reaches the point at which the urban/rural distinction no longer exists. The human-made environment is distributed over the open countryside until its structures appear to be natural, “organic” parts of the landscape. Wright believed that the metropolis with its centralized institutions was the greatest embodiment of progress but the greatest barrier to it. He saw the big city as a monstrous aberration built by greed, destructive both efficient production and to human values. He believed, it was inevitable, in the age of the car and the telephone the great cities were doomed they were “no longer modern.” He assumed that modern humans had an inherited right to own a car and that the car had created the possibility of new communities based on a new mastery of time and space. And this would be done through design. Here is Wright’s Usonian vision:
Imagine, now, spacious, well landscaped highways, grade crossings eliminated by a new kind of integrated by-passing or over-or under-passing all cultivated or living areas … Giant roads, themselves great architecture, pass public service stations no longer eyesores but expanded as good architecture to include all kinds of roadside service … These great roads unite and separate, separate and unite, in endless series of diversified units passing by farm units, roadside markets, garden schools, dwelling places, each on its acre of individually adorned and cultivated ground… This would be the Broadacre city of tomorrow that is the nation. Democracy realised (Lloyd Wright 1945, cited in Hall 1996 p. 288).

The world of concentrated wealth and power would be replaced by one in which the means of production would be widely held. Wright believed that urban life was as dangerous to the nation’s mental health as urban economics was to its physical well-being. He summed up his analysis of evil of the city in the term "Rent," Wright’s word for exploitation. Wright also sought to eliminate any rigid specialization of Broadacre City citizens into farm workers, factory workers, or office workers. In Broadacre city both physical and mental labor would be part of everyone’s daily experience. Everyone would have the skills to be a part-time farmer, a part-time mechanic, and a part-time intellectual (Fishman 1982, 128). The worker would cease to be a property less proletarian. On his own land he could never be ‘unemployed or a slave to anyone’ (cited in Fishman 1982, p. 130). This independence increased his economic power even when he was working part-time for others. Since he could live by his own labor if necessary, he did not have to summit to exploitative wages or poor working conditions. Wright also believed that factories in Broadacre city could be either privately or cooperatively owned but most importantly they they would be small and located within convenient driving distance of the people who were employed in them. However, he did support a limited measure of inequality, because equality, he argued, would threaten individuality. Within these limits there was no rigid hierarchy because ‘quality is in all, for all, alike…there is nothing poor or mean anywhere in Broadacre’ (Fishman 1982, p.131).

Wright’s focus on the individual and on achieving and reflecting democratic principles through the spatial layout of towns has attracted a great deal of criticism particularly from compact city advocates who argue that the tyranny of the individual sits in stark contrast to notions of ‘community’ embedded in sustainable city discourse (see for instance Morris 2005, Nozzi 2003; Putnam 2000). Wright’s work also sits in marked contrast to the final theorist to be discussed here. For him access to land and the means to production represented democracy. In contrast to this vision of extreme decentralization, Le Corbusier is considered to be the arch centralist (Breheny 1996).
6.6 The City of Tomorrow: Le Corbusier

In proposals that sound remarkably similar to current debates Le Corbusier argued that there was a need to decongest the centers of cities by increasing their density. He argued that contemporary cities were dying because they were not constructed geometrically and that the needs of traffic demanded the demolition of city centers (Hall 1988, p.208). He embraced technology and suggested that city planning needed to reflect technology – it should be mass-produced and based on geometry. Centers of cities needed to be constructed vertically on a cleared site. The result of a true geometrical lay-out is repetition and the result of repetition is a standard, the perfect form (Le Corbusier 1996, p. 373).

In the city of tomorrow he argued that the principles of modern town planning should be based on rules that related to all cities anywhere – or rules of conduct. These could not be left to ordinary citizens – as Hall points out:

…everything would be determined by the plan, and the plan would be produced ‘objectively’ by experts; the people would have a say only in who was to administer it (Hall, 1988, p. 210).

The harmonious city must first be planned by experts who understand the science of urbanism. They work out their plans in total freedom from partisan pressures and special interests; once their plans are formulated, they must be implemented without opposition (Fishman 1977, p. 239). Le Corbusier defined 4 basic principles to follow:

1. We must de-congest the centres of our cities
2. We must augment their density
3. We must increase the means of getting about
4. We must increase parks and open space (Le Corbusier 1996, p. 372).

In The City of Tomorrow he proposed a city of 3 million inhabitants with the following levels of density:

- The sky scraper: 1,200 inhabitants to the acre
- The residential blocks with set-backs: 120 inhabitants to the acre. These are the luxury dwellings
- The residential blocks on the ‘cellular’ system, with a similar number of inhabitants
Apartments would be mass-produced for mass living, uniform, regular geometric and the contemporary city would be carefully zoned, ordered and logical:

Our first requirement will be an organ that is compact, rapid, lively and concentrated: this is the city with a well organised centre. Our second requirement will be another organ, supple, extensive and elastic; this is the garden city of the periphery. Lying between these two organs, we must require the legal establishment of that absolute necessity, a protective zone which allows of extension, a reserved zone of woods and fields, a fresh-air zone (Le Corbusier 1996, p. 370).

Not only would all units be standardized and the people living in them they would all contain the same standardised furniture. They would also contain all that was necessary (mechanically) for human existence – shops, recreational areas, playgrounds so there was no need to move beyond the apartment block. He argued:

We must never, in our studies, lose sight of the perfect human ‘Cell’, the cell which corresponds most perfectly to our physiology and sentimental needs. We must arrive at the ‘house-machine’, which must be both practical and emotionally satisfying and designed for a succession of tenants. The idea of the ‘old home’ disappearing and with it local architecture, etc, for labour will shift about as needed, and must be ready to move, bag and baggage (Le Corbusier 1996 p. 374).

What Le Corbusier shared with the other utopian designers and theorists discussed here was a belief that changing the spatial layout of cities would lead to changes in social values, conditions and lifestyles. Their work has been criticized since the late 1970’s as utopian, a criticism that reveals how, according to ‘social idealism leads so quickly to social catastrophe’ (Jencks 1985, p. 372).

The three theorists discussed and those who followed them were influential in the early part of the twentieth century at the same time as large scale expansion of suburbs began when technology and machines led to the development of suburbs on the urban periphery, particularly in America and Australia.

6.7 The Australian Context

According to many commentators conditions have always been different in Australia. Settled by Europeans at a time when the suburban ideal was emerging in England, colonial Australia was, in the words of Davidson ‘…born urban and quickly became suburban. From the earliest days of the colony of New South Wales, our cities have been shaped by a dread of density and a susceptibility to sprawl’ (Davidson 1997, p. 10).
Australia was in the words of Davidson (1995) ‘the world’s first suburban nation’. However, as with other places across the globe, Australian suburban sprawl came under increasing attack in the late 1950’s and 1960’s reflected in titles like The Australian Ugliness by Robin Boyd (1960), and it became the focus of ridicule in literature (They’re a Weird Mob by John O’Grady (1957) and My Brother Jack George Johnston (1964), and in art. Davidson attributes the emergence of opposition to suburban development and interest in consolidation in the 1960’s in Australia, to a revolution in cultural values as a result of immigration, heightened ecological awareness, and later the oil price hikes of the 1970’s. However, as he argues:

The cultural revaluation of urban space, symbolised by the middle-class rediscovery of the terrace house, laid the foundations for the current campaign for urban consolidation. Many of its architects are themselves long-time residents of the inner city and their belief in the delights of density has probably been reinforced, if not actually inspired, by that experience. We should not be too critical of them – everyone tends to think that what is good for them will be good for everyone else. If you’re an intellectual who likes reading books and drinking cappuccinos and hates moving lawns and repairing motor bikes, then the inner-city terrace house is just what you need. But if your terrace house is in a so-called ‘urban village’ halfway to Ballarat or Bowral then urban consolidation starts to look a lot less attractive (Davison 1995, p. 15).

According to Troy urban consolidation policies in Australia were ‘…developed with seemingly little understanding of the origins of urban planning or why Australian cities take their present form and structure (Troy 1996, p. 2). Early towns in Australia were essentially suburban in form. Development of railways and tramways in the nineteenth century facilitated the growth of cities in which the single family detached dwelling was the dominant form of housing. Suburban expansion was further facilitated by widespread car ownership in the twentieth century. As cities grew rapidly in the post world war two period were increasingly not able to meet demand for services – water, sewerage, drainage and public transport and one response was for governments to shift responsibility for provision of services to developers. However, state governments still faced increasing demands for capital for a wide variety of services (Troy 1996, pp 3-6). The favoured solution that emerged by the 1980’s firstly in Sydney was to pursue a policy of urban consolidation as a way of reducing demand, a policy that initially faced a great deal of opposition, particularly from local government. And so, according to Troy:

In the face of spirited opposition, State governments developed an environmental argument to rationalise their policies: they sought to justify their position by arguing that environmental benefits would flow from the consolidation policy, adding to the benefits it was claimed would result from more efficient provision of and use of infrastructure. Similar processes and arguments followed in other States and Territories …It was also thought that increased density would decrease sprawl – a
The 1980’s witnessed a significant withdrawal of the Commonwealth government in urban affairs and it was not until 1989 that a National Housing Policy Review was established, followed by The National Housing Strategy; the outcome of which ‘…was to produce an argument to support policy positions which had already been adopted. It gave special weight to the arguments favouring consolidation (Troy 1996, p. 11). A number of reviews followed in the early 1990’s including the Australian Urban and Regional Development Review and the Urban Design Taskforce, however, the Commonwealth simply affirmed ‘…the arguments in favour of consolidation which had been rehearsed by the States’ (Troy 1996, p. 12). For Troy arguments for urban consolidation are based much more on rhetoric but also political expediency rather than on any evidence to support claims about the benefits of consolidation policies. Moreover, these policies are adopted from elsewhere – from America – where processes of urbanisation and suburbanisation and the drivers for these processes are different. As Davison puts it:

The rhetoric of ‘suburban sprawl’ has been appropriated from its original use as a description of unregulated forms of tract development in the USA to become shorthand in Australia for the many perceived environmental and social failings of suburbs (Davison 2006, p. 209).

And this has important implications for the ready acceptance of urban consolidation rhetoric in Australia because ultimately the end result involves a redistribution of resources (including spending on infrastructure) away from those communities that may well need it on equity grounds. In their enthusiasm for Smart growth policies in America Chavan, Peralta and Steins (2007) let this often unspoken consequence out into the open. They argued;

…since the tenets of smart growth include the redirection of public investment away from the suburbs to central cities …the movement has gained allies outside the planning profession, among the environmental and social justice advocates working to protect wilderness and revive the inner cities of American metropolises (Chavan, Peralta and Steins 2007, p. 4).

This dichotomy between sprawl versus containment found ready expression in the 1996 State of the Environment Report –which characterized the two positions as the oppositional ‘suburbanisers’ versus
'reurbanisers'. Suburbanisers are defined as '...those who favour continuing low density suburban development' and 'are less inclined to see serious or intractable problems' in suburban and outer suburban areas (State of the Environment Advisory Committee, 1996, p. 3.24). Reurbanisers in contrast identify serious and intractable problems in outer suburban areas, including long term poverty, discontent, vulnerability and deprivation. Reurbanisers also point to the adverse impact of car use in these areas on the social, built and natural environments (State of the Environment Advisory Committee, 1996, p.3.25-26). The report was clearly in support of reurbanisation as the most appropriate approach for moving towards more ecologically sustainable cities (State of the Environment Advisory Committee 1996). Built into this acceptance is the common assumption that social issues can be addressed simply by changing urban form. The report concluded:

Urban planning in general and transport planning in particular remain problem areas, with few effective attempts to contain the outward urban sprawl or improve public transport...There is little sign of any concerted attempt to redirect the pattern of consumption into a sustainable direction (State of the Environment Advisory Committee, 1996, p. 10.26).

Urban development needed to be managed more carefully, incorporating the principles of ecologically sustainable development, community development and quality urban design. Large cities, the report argues are more 'efficient' in their metabolic flows than small cities and large cities enjoy 'better livability' (State of the Environment Advisory Committee,1996; ES 12). The urban fringe, on the other hand, 'suffers poorer social amenity (access to public transport, and health, educational, sporting and recreational facilities) (State of the Environment Committee, 1996; ES 13). Here 'Livability', an extremely subjective term, is defined in terms of service provision. The 1996 report was followed by two further reports in 2001 and 2006 that both noted a trend towards higher densities in all of Australia’s capital cities and this was noted as a positive trend towards the transition towards sustainability as a result of government policies, particularly at State Government level, supporting urban consolidation that had been developed over the last 20 years.

The debate in Australia around compaction versus sprawl clearly reflects the broader global discourse and for some commentators it has remained difficult to object to. According to Anderson the problem is one of language and in particular the language of sustainability. She argues that the:
simplistic languages of ‘sustainability’ and ‘sprawl’, seductive as they are for depicting ever-more dispersed cities like Sydney and Los Angeles with their increasingly stressed infrastructures, tend to dismiss the potentialities of new suburban forms, imaginaries, and governance structures. ‘Sprawl’ overwrites existing suburbs as if they are just larger versions of what went before. The language stifles the energy urgently needed to better network, retrofit, and manage the ‘mosaic of cities’ that Sydney already is. Such a task need not avert attention from the urgent environmental challenges of urban growth’s ‘fossil fuel yoke’...But it does build on the recognition of a differentiated and cosmopolitan suburbia that has the capacity to be part of the solution more so than the problem (Anderson 2006, p. 7).

Much more colorfully Gleeson has identified and described the two dominant storylines that currently constrain the way in which the sustainable city is spoken and written about, and contested in Australia:

The poorly grounded and condemnatory critique of ‘sprawl’ is a vexing problem for a suburban nation. Its failings haunt the grounds of contemporary suburban debate with misleading spectres, whose lamentations warn of obesity, poverty, loneliness and almost every other human malady, including an early death. I describe this critique as ‘suburban gothic’, opposed by an equally melodramatic counter-narrative, The Great Australian Dream Swindle. This tale of planning *noir* bemoans a stolen generation of homeownership dreams. A cinema-scoped fable of hopeful newlyweds in wagons turned back from suburban frontiers by unfeeling black-robed bureaucrats. The black robes have halted the natural order of suburban things by slowing the tide of brick veneer. Those who weave the tale—the Australian Dreamers—wish to safeguard the long slumber of suburban conventional wisdom. Here, social intelligence is reduced to the pragmatic axiom: what has (appeared) to work will always work and therefore must be always right. Gleeson 2008, p. 2655).

But these two tales, have and continue to have enormous influence in the debate, overlooking the possibilities beyond that which the ‘dichotomy of American suburban sprawl or ‘higher-density European style cities’ allows (Bamford 2004, p. 14). But even further than this adherence to these tales or storylines may well lead to undemocratic outcomes, unless the terms of the debate are examined. As Davidson notes:

The determination and achievement of urban sustainability objectives cannot be advanced in Australia as viable democratic projects if suburban environments are demonised, their populations patronised and homogenised, or new challenges understood as independent of historical legacies. Technical information about flows of resources, wastes, people, capital and risk is crucial to the determination and achievement of these objectives. But data alone is not sufficient to the task. It may in fact be detrimental if it is employed as a means of side-stepping potentially fraught and often slow public deliberation over contested questions of value, especially those questions bearing on the sources of anxiety and fear that continue to energise suburban desire for private refuge (Davison 2006, p. 212-213)
Anderson, Bamford, Davidson and Gleeson’s observations have been partially reinforced here. The chapter aimed to demonstrate the storied nature of sustainable city discourse. Far from referring to actually existing places the discourse establishes from the outset that a ‘compact’ city is sustainable and low density ‘sprawl’ is not. And despite evidence and argument to the contrary because it is framed within storylines of decline on the one hand and control on the other it is difficult to resist and challenge. The chapter also aimed to demonstrate that the particular framing in terms of compaction versus sprawl is not new nor is it innovative; it simply reflects an on going debate that emerged at the end of the nineteenth century.

However while the chapter has demonstrated the way in which the concept sprawl has gained such prominence in sustainable city discourse it doesn’t explain why. It raises the questions - how and why is it that one particular way of constructing the sustainable city has come to dominate discussions, both globally and in Australia? As I have explained earlier asking these questions shifts attention away from instrumental questions or questions that focus on implementation towards an understanding of sustainability as a discourse. The next three chapters focus on a specific Australian case study of a House of Representatives Standing Committee Inquiry into sustainable cities. The aim is to consider how dominant ideas about what constitutes a ‘sustainable city’ frame debate in Australia and with what consequences.
The Sustainable city and the Rhetoric of ‘Sprawl’

7.0 Introduction

This chapter and the following two chapters are based on a case study of the Australian Government’s House of Representatives Standing Committee on Environment and Heritage’s Inquiry into Sustainable Cities 2025. In this chapter I focus firstly, on the way in which ‘sustainable cities’ were spoken and written about throughout the Inquiry and so the chapter begins with an analysis of the initial framing, as outlined in the discussion paper (see Appendix 2). The Inquiry called for discussion and input ‘from a wide range of professions, community groups, local and state governments, researchers, businesses, industry associations and individuals’ (House of Representatives Standing Committee on Environment and Heritage 2003, P. 2) and so one would expect a wide range of divergent views about what constitutes a sustainable city. The majority of participants, however, reiterated and then positioned themselves within the dominant storylines of sprawl versus containment even though their interests were often quite different. They therefore shared what Hajer has described as discursive affinity where:

…arguments may vary in origin but still have a similar way of conceptualising the world. An important example from pollution politics is the discursive affinity amongst the moral argument that nature must be respected, the scientific argument that nature is to be seen as a complex ecosystem (which we will never fully understand), and the economic argument that pollution prevention is actually the most efficient mode of economic production (this is the core of the discourse of sustainable development). The arguments are different but similar: From each of the positions the other arguments ‘sound right’. The task of the analyst is to expose such discursive affinities (Hajer 2006, p. 71).

Despite the appeal to a broad range of interests noticeably absent from the discussion were voices from the social welfare sector, from consumer groups or from representatives from indigenous and ethnic organisations (see Chapter 8). One of the reasons for this absence is that the boundaries around how discussions should proceed were firmly established from the outset in the discussion paper. This chapter is concerned with exploring how this framing was reinforced or challenged by participants and in what ways.
The discussion paper, released at the launch of the Inquiry in 2003, was organized around the familiar sustainable city storylines of sprawl or containment or decline and control (see Chapter 6). And while it became clear during the Inquiry that the discussion paper did not necessarily represent the views of the Committee, it was at the time, understood to represent the accepted wisdom on what a sustainable city should be like as a way of canvassing input. It begins with an imperative - ‘Cities of the Future must be sustainable cities’ (House of Representatives Standing Committee on Environment and Heritage 2003, p. 4). And as with most definitions of ‘sustainable cities’ a link is made between the environment, social equity and economic growth with an emphasis on changing settlement patterns. So the cities we ‘must’ have will:

…integrate the built and natural environment. The sustainable city will assist in retaining the biodiversity of Australia, have a developed infrastructure that gives efficient and equitable access to services and utilities, preserve the essentials of the ‘Australian lifestyle’ and contribute to the economic wealth of the nation (ibid, p. 4).

The city itself is here personified as being an active agent of change. It is the city itself that ‘will assist in retaining biodiversity’, ‘have a developed infrastructure’ and will ‘preserve the essentials of the ‘Australian lifestyle’ while contributing to economic growth. Clearly future-focussed and in control, the sustainable city is by implication here contrasted to the ‘out of control’ unsustainable city. The definition is later restated as

A sustainable and liveable city will require sound urban planning, affordable and sustainable buildings, a reduction in car dependency, provision of urban green zones and bushland, clean airways and waterways and an overall improvement in energy efficiencies (ibid, p. 14).

The linking of sustainable with liveable is once again characteristic of the broader sustainable city discourse as is reduction of car dependency, cleanliness and efficiencies. The use of imperative language - ‘will have, or ‘will require’ demonstrated that there is little choice in terms of what a sustainable city ‘will’ do. The framing therefore leaves little to argue against because who could or would choose the
opposite – the unsustainable city which again by implication is ‘unliveable’, ‘unsound’, ‘unaffordable’, ‘dependent and so on.

The terms of reference for the inquiry, as outlined in the discussion paper, are quite specific about what a sustainable city would be like spatially. These were to investigate:

- 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 provision of services and infrastructure;
- Measures to reduce the environmental, social and economic costs of continuing urban expansion; and
- Mechanisms for the Commonwealth to bring about urban development reform and promote ecologically sustainable patterns of settlement (ibid, p. 3).

And so ‘the problem’ that was to be addressed during the inquiry was clearly articulated from the outset and that problem, again in line with the broader sustainable city literature is sprawl. What is not questioned is that Australian Cities need to develop and grow, a point noted in a number of submissions, but rather that growth and development needed to be contained, controlled and hence sustainable. This was a clear articulation of the story of decline and disorder, on the one hand, and the story of order and control on the other, where sprawling urban development has environmental and social impacts as well as social and economic costs (see Chapter 6). The alternative, the ecologically sustainable settlement is not only desirable but also eco-efficient and equitable. The focus of urban development reform should therefore allow for growth while bringing the ‘sprawl’ under control. So the terms of reference positions what is to follow firmly within the dominant global storyline about what a sustainable city is or should be – compact cities are sustainable cities, sprawling cities are not.

But it goes further than this. The discussion paper is structured around a series of questions based on seven ‘visionary objectives’:

1. Preserve bushland, significant heritage and urban green zones;
2. Ensure equitable access to and efficient use of energy, including renewable energy sources;
3. Establish an integrated sustainable water and stormwater management system addressing capture, consumption, treatment and re-use opportunities;
4. Manage and minimise domestic and industrial waste;
5. Develop sustainable transport networks, nodal complementarity and logistics;
6. Incorporate eco-efficiency principles into new buildings and housing; and
7. Provide urban plans that accommodate lifestyle and business opportunities (ibid, p. 4).

Far from being visionary these objectives simply restate familiar elements in the dominant storyline harnessing both the language of limits – preserve, efficient, renewable, re-use, minimize - and of inclusion – equitable access, integrated, incorporate, accommodate. The focus is on efficient use of resources, rather than inefficiency and waste. The ‘problem’ of unsustainable cities is therefore framed instrumentally from the outset with a focus on how to achieve specific measures and outcomes rather than as a political question where diverse and conflicting perspectives could be given a forum for expression. The way in which the ‘problem’ of unsustainable cities is framed contains its own conclusion leaving little room for an open ended discussion. The questions that follow each of these visionary objectives characteristically build on and enhance this approach. As an example, the first question that accompanies visionary objective one is almost a closed one, pre-empting the required response:

_Do the inclusion of green zones within city planning result in further urban sprawl, which has a greater detrimental effect for the environment by encroaching on more surrounding bushland? (ibid, p. 5)._

To frame this question as a response in the only way possible – green zones should not come at the expense of ‘bushland’ on the urban fringe. Limits need to be placed on sprawl to control ‘detrimental’ effects on ‘surrounding bushland’ understood as ‘environment’. The ‘environment’ is here understood as ‘green’ and the edge of the city or the urban fringe is represented as the frontier – bushland – a representation that contradicts the discussion papers aim to establish ‘a harmonised rather than frontier approach … to retain Australia’s biodiversity, eco-systems and to provide settlements which can be co-habitated by people, flora and fauna (ibid, p. 5). But in order for this to happen settlement needs to be contained. As one local government submission pointed out, ‘Bushland is archaic terminology that demonstrates exactly the frontier thinking style that the paper proposes that we need to move away from” (House of Representatives Standing Committee on Environment and Heritage 2003 -2004 submission 29, p.21). But it also suggests that Australian cities are surrounded by bushland a proposition that references the dominant global discourse about sustainable cities rather than referring to particular places in
Australia. This is not to suggest that bushland does not exist in some places on the edges of Australian cities but rather to highlight the generality of many of the claims in this discussion paper.


Three cases studies press home the point. Offered as models of what a sustainable city would be like, the examples include a case study of a sustainable commercial building in Melbourne, a sustainable inner-city housing development in Adelaide and sustainable transportation strategy, which reduces automobile dependency, in Vancouver, Canada (House of Representatives Standing Committee on Environment and Heritage 2003, p.14). All three of the case studies are considered to be examples of sustainability because all three focus on reductions in resource use – water and energy, and in the generation of waste by using recycled materials and treatment of effluent. The Discussion paper claimed:

Sustainable buildings, incorporating passive and active solar energy, rain water collection and grey water reuse, can provide environmental, social and economic benefits to both residential and commercial occupants. (ibid, p.14).

How use of solar energy, rainwater collection and grey water reuse can lead to environmental, social and economic benefits is not spelled out; the benefits are assumed. These are big claims and they rely on a particular framing of the social, the economic and the environmental. In the first example for instance – the 60L building in Melbourne:

A rooftop garden has been designed to enhance the aesthetics of the inner city and provide an outdoor space for employees. The garden uses native plants and is watered using on-site treated waste water (ibid, p.14).

Similarly, shared landscaped areas and community spaces for residents have been provided in the second example, Christies Walk Development in Adelaide, and because of their inner city location, access to public transport and opportunities for walking, are also features highlighted as ‘social benefits’. The
‘social’ here is clearly not ‘everyone’. The third example, the City of Vancouver is presented as a model of a sustainable city – medium to high density development as a result of an urban containment strategy which focuses on reurbanisation, along with reduced automobile dependence by the provision of public transport and the absence of freeways.

The case studies serve to reinforce the dominant storylines as told in the discussion paper. Social benefits include reduced automobile dependence, opportunities for walking, reurbanisation, and outdoor green shared spaces; a framing that remains generalised and based on an assumption that demonstrating these benefits are simply enough to claim ‘sustainability’. Likewise environmental benefits include reductions in resource use, use of native plants and shared landscape areas; a framing which relies on a particular generalised understanding of what constitutes ‘environment’. All of the case studies share one thing in common; all reinforce the need for medium and high-density urban development as a way of reducing resource consumption and urban ‘sprawl’.

Given the way in which the sustainable city was framed in the discussion paper it is not surprising that a dominant focus throughout the inquiry was on strategies to reduce sprawl.

7.2 The problem with ‘sprawl’

The use of the term sprawl immediately conjures up images of the uncontrolled, unplanned growth of cities that ‘sprawl’ and are difficult to contain. This lack of control and containment and the associated ‘costs’ was evoked in a number of ways throughout the Inquiry drawing on already existing and well-rehearsed storylines (see Chapter 6). The following outlines the dominant ways in which the ‘problems’ of sprawl were spoken about during the Inquiry. It demonstrates the way in which the term sprawl functions as a ‘short cue’ (Hajer 2006) to frame a discussion amongst diverse interest. Used as a metaphor to reference a huge range of urban ills, it also suggests a panacea to them all (see Chapter 6).

The following discussion is organised using headings that reference not only the well rehearsed understandings of the impacts of sprawl as outlined in chapter 6 but attempt to reflect what are commonly
understood as the three pillars of sustainability – environmental, economic and social – all of which need to be integrated (see chapter 2). Organised in this way what the discussion reveals is that accounts of the ‘impacts’ of sprawl whether referring to social, environmental or economic impacts are clearly framed within the storyline of decline and rely in particular on binary opposites including compact/sprawl, efficient/wasteful, responsible/irresponsible, lively/boring, positive/negative. What also becomes clear is that attempts to integrate all three aspects of sustainability – environmental, economic and social – into shared storylines generalises and then masks underlying contradictions and conflicts. The three pillars of sustainability are in fact conflated because of the underlying need to adhere to dominant storylines.

And so in line with the dominant storylines and as articulated in the discussion paper the impacts of urban sprawl on ‘the environment’ was one of the main focuses during the inquiry. For many environmental groups urban sprawl results in the loss of bushland and productive agricultural land on the urban rural fringe while for others the overuse of resources was the major concern. Often the two concerns were linked and both were framed in terms of decline and disorder.

7.2.1 Loss of bushland and agricultural land

Submission 177 from a local environmental group for instance complained, ‘With the most rapid population growth in the country, we are watching in horror as our floodplains, fields, farms, forests and fisheries are covered in housing’ (House of Representatives Standing Committee on Environment and Heritage 2003-2004, submission 177, p.2). Here ‘housing’ is understood not as shelter or even as homes which would conjure up quite different images but as a consumptive land use, a point reiterated in submission 45 from a private individual, and submission 87 from an Non Government Organisation (NGO) which claimed that sprawl not only consumes, but swallows land on the urban rural fringe:

Environmentally, urban sprawl means many of our major cities have encroached and swallowed enormous tracts of surrounding arable agricultural land, shifting the rural lands that provide food sources further and further from our cities where the food is consumed…Inefficient land use also means added pressure on outlying bushland and green corridors (ibid, submission 87, p.3).
Along with ‘swallowing’, other metaphors used to denote the impact of ‘sprawl’ included ‘eating’ (ibid submission 12, p. 6), ‘spreading’ (ibid submission 28, p. 1), encroaching (ibid submission 28, p.1), ‘sucking’ (ibid submission 45, p. 3), and ‘feed upon’ (ibid submission 50, p. 2). And while few participants would or could probably agree that cities do in fact function in this way (eating, swallowing) – the use of organic metaphors and personification reinforce the dominant storyline of decline and the need to bring the situation under control. Other descriptors include ‘relentless’ (ibid, submission 22, p. 4) and ‘bland’ (ibid submission 70, p. 6).

For several of the submissions this was the single most important imperative in terms of future sustainable cities and so for one NGO:

Urban planning must concentrate on preventing further loss of bushland by stopping fringe development and protecting parcels of remnant bushland (ibid, submission 42, p.1).

And this should be done at any expense because, ‘New urban areas must also not encroach on existing natural forest areas or other significant natural areas, as there is already enough cleared land…people should not be building in forest areas and then complaining about the fire risk’ (ibid, submission 12, p. 8). This is also true of agricultural land according to another NGO who pointed out that, ‘Some of the most productive land in Australia is being paved’ (ibid submission 44, p.3). But what of the people who live in the suburbs or on the fringe? As one private submission noted, ‘The tragedy of the Commons is alive and well and living in suburban Australia’, and as a consequence people, not ‘nature’ need to be managed because, ‘We need to remember that nature does not need managing. It is human interactions with nature that need to be managed’, (ibid submission 31, p. 2).

For others ‘sprawl’ is characterised as ‘unnatural’ because it fails to respect natural limits; ‘we’ need instead to ‘live in balance with nature’ (ibid submission 88, p.1). This dichotomy is perhaps best expressed in one private submission which argued:

The typical modern suburban area reflects the human crisis in which modern people are now only beginning to wake up to. Its loneliness, superficiality, bald functionality, orientation to
competitive behaviour, and undercurrents of fear represents a self-made departure from the natural environment (ibid submission 85, p. 10)

Here we see the articulation of a cultural stereotype of the suburban dweller which was widely shared by participants and one which is clearly linked to the story of decline. The suburban dweller lives in opposition to the ‘natural environment’: a condition which leads to loneliness, superficiality, bald functionality, competitive behaviour and fear. But what is this ‘natural environment’ that exists outside of the city boundaries that is threatened by sprawl? Or put another way what are or should containment strategies be saving? In a revealing exchange during the inquiry process between the Chair and a representative of Environment Victoria the ‘ecological’ merits of land set aside in Victoria as green wedges was questioned as follows:

CHAIR—Green wedge by definition, down our way, is clapped-out farming land, and it is green only because the cows have had a gnaw at it for about the last hundred years. It would seem, in sustainability terms, that a wiser definition would be ‘sustainability wedge’. If the ecology is the greatest value and virtue in one part of the green wedge, leave it there. Down our way, the ecological value of those areas is really difficult to identify, yet we know that some garden based spaces—even industry, if there were an aggressive revegetation program as part of a technology park or something—would be a far more productive sustainability investment because people would not be spending all day in their cars. You would be diversifying the community activity, using that space to enhance sustainability and not just leaving it as a place for agistment and cow dung. I am just wondering if sometimes we get wrapped up in the rhetoric and—it sounds like a terrible description—lose sight of the forest for the trees when there are not any there. I wonder whether there is a maturation required in the ideas, rather than saying, ‘There’s a green wedge. It’s great. It’s got a couple of dairy cows on it but, other than that, we are not quite sure what it does.’

Mr BARRESI—Not out my way.

CHAIR—That is what I am saying and that is the point—out your way a proper assessment of those green wedges is the ecological value and the habitat virtue of it, whereas down our way, Phil, if I planted a couple of eucalypts out there, that would be the biggest environmental enhancement seen for ages.

Ms Brown—It depends on how you manage those areas, obviously. The key is working with local councils and state governments to manage the green wedges to actually assist the biodiversity growth and to manage it whether for agricultural or other sorts of uses—tourism and that sort of thing. We need to be very careful of what happens with the green wedges. We cannot just draw a line and leave it. The other thing you highlight is that, apart from the green wedges, there is still plenty of opportunity to enhance biodiversity and do other sorts of projects that are inside the city boundaries that are not necessarily green wedge. I think you are right: it does not have to be left as a boundary so simplified in that way (House of Representatives Inquiry into Sustainable Cities 2004-2005 16th March 2004, p. EH 9).

What this brief exchange revealed is the way in which the dominant storyline homogenises the problem of the ‘unsustainability’ of cities but also the role that language plays. It also suggests that policies based on consolidation may not necessarily have the claimed outcome. Containment policies and green wedges
are seen as necessarily a good thing because they contain and control urban sprawl and in a simple reversal of the binary preserve ‘nature’. What the extract suggests is that the leap from descriptions of the impact of sprawl to prescription –stopping sprawl, or what Rein and Schon refer to as the ‘normative leap’ (Rein and Schon 1993, p. 148), is based more on rhetoric and less on what actually exists on the ground. Use of the word sprawl refers to imagined spaces and in this case adherence to the dominant storyline matters more than what exists out there. This attempt at critique, however, can be understood as an ‘antistory’ (Roe 1989, p. 252) which while challenging the dominant storylines does little to reduce the ambiguity of the issues involved. In some places containment strategies may well have the desired outcome, but as the extract reveals maybe not in all.

Four private submissions (submissions 2, 4, 10 and 14) challenged the assumption that green wedges lead to ‘sustainable’ outcomes. Their complaints included infringement of private property rights by not allowing subdivisions, lack of compensation and the fire risks posed by bushland so close to residential development. Submission 2 complained that property rights were being undermined:

…in favour of emotional visions from vocal minority groups who make no physical or financial contribution to the maintenance of privately owned land within the urban green zones (House of Representatives Standing Committee on Environment and Heritage 2003-2004 Submission 2, p. 2).

The need for compensation was reiterated in another private submission which argued:

The expectation that a planning scheme direction to a landowner/manager that he or she must provide for the community's benefit a particular environmental outcome, solely at the managers expense is not equitable or sustainable. Any good or service supplied without remuneration constitutes theft. If the community deem that a particular environmental amenity warrants special attention; through a planning scheme direction; for that direction to be equitable and achieve its maximum effect then the funding base must be much broader, this may be achieved by having some broader community input (ibid Submission 37, p. 3).

What is left hanging in all of this is of course what constitutes a community interest what is meant by the term ‘community’ and how with ‘broader community input’ a fair and equitable decision can be made. These are all, however, political claims suggesting that ‘green’ may not always necessarily equate with ‘good’ and that in the quest for ‘the common good’ individual rights are often overlooked or infringed upon. Raising questions about individual rights and about land use conflict do not, however, sit well with
the dominant storyline which relies on a level of generality and agreement so that it ‘sounds right’. There
seems to be little place in sustainable city discourse for individual stories or for contestation.

7.2.2 The economic costs of sprawl

But it is not just agricultural land and bushland that is consumed by ‘sprawl’, the urban rural fringe is in
fact characterised as a site of over-consumption of resources as well. As a planning consultant
complained:

…It is at the urban fringes that Australian suburban development has its bluntest expression. Land is usually converted to housing estates little different to the low density suburbs of the last forty years. Car dependency and intensive use of land, water and energy are the consequences of these development decisions that will last for generations” (ibid submission 22, p.2).

This point was reiterated by the City of Darebin which argued:

Sustainability cannot be achieved if unfettered urban sprawl continues along with increased
water consumption. Consumption levels and urban sprawl must be curbed as part of an
integrated approach (ibid submission 29, p.29).

Or put another way by a consultant, ‘If we are to sustain the ecological resources of Australia, it is
necessary not to further the sprawl of our towns’ (ibid submission 68 p. 3). And so sprawl is here
associated with consumption and this conflation of resource use and sprawl suggests that the non-
sprawling ‘contained’ city uses resources like water more efficiently.

But not only is urban sprawl ‘consumptive’, it is also costly. A submission from the Australian Capital
Territory (ACT) government for instance argued that, ‘The sprawl of Australia’s cities reflects the way
land is viewed as an infinite resource and fails to recognize the hidden subsidies… associated with
provision and maintenance of infrastructure and services’ (ibid, submission 154, p. 11). This point was
reiterated by a NGO which argued, ‘Australia’s cities have large urban footprints for their relatively small
populations. Continued outward expansion burdens the public purse by requiring the spreading of urban
infrastructure over a greater area’ (submission 194, p. 4). Likewise the Western Australian Government argued:

the over reliance in the past on dispersed, low density settlement forms… can impact adversely on many aspects of sustainability – especially by increasing car dependency, reducing accessibility, giving rise to higher infrastructure costs and less efficiency in the provision of services, and by reducing the supply of agricultural and bushland (ibid submission 173, p. 25)

What stands out here is that if the provision of services and infrastructure is to be ‘efficient’ then density needs to be increased. What is unaccounted for is that the vast majority of Australians live in the suburbs and on the urban rural fringe, where infrastructure and service provision are already considered to be poor and the people living there disadvantaged (see section 7.2.4). In this reading and using this interpretation of efficiency providing those services to these areas is inefficient and therefore unsustainable. However, as Deborah Stone reminds us:

Efficiency is always a contestable concept. Everyone supports the general idea of getting the most out of something, but to go beyond the vague slogans and apply the concept to a concrete policy choice requires making assumptions about who and what counts as important (Stone 2002, p. 65).

Equating density with efficiency is therefore little more than a value judgement about who and which areas deserve greater allocation of resources. Defined in a different way resources could be distributed quite differently. But not only is the sprawl considered to be inefficient, costly and destructive there are other costs as well in terms of what the ‘sprawl’ looks like.

7.2.3 Sprawl as characterless

The uniformity and characterless nature of ‘sprawl’ is also noted in a number of submissions. For instance for one private participant the word sprawl is:

…aptly chosen for what, in the common perception, is an unsatisfactory and characterless mode of development of our cities, and I would extend it also to the kinds of development along the coastal fringes’ (ibid submission 78, p.1).
And from a consultant, ‘Urban sprawl is the least attractive response to urban growth. It usually occupies productive land and does so in an inefficient and isolating manner often without adequate infrastructure’ (ibid submission 79, p.5). For the National Trust of Australia (Victoria) (ibid submission 28, p. 1) ‘excessive’ urban sprawl has led to uniformity in the suburbs and on the fringe. This for the Royal Australian Institute of Architects is due to a lack of design because the majority of Australian housing is ‘…low density detached dwellings in sprawling suburbs, almost none designed by qualified architects, the majority fundamentally unsuited to the climatic environment of Australia’, (ibid submission 159, p. 7). And in evidence during the Public Inquiry representatives from the Institute went on to describe the suburbs as:

The great sprawling suburbs of brick veneer houses with dark tiled roofs and no roof ventilation are…all fundamentally unsuited to the climate and to the lifestyle. They are European, internalized, modular little box models (House of Representatives Standing Committee on Environment and Heritage 2004 – 2005 11th March 2004 Session 1 p. EH5).

As a result of all of this, ‘Australian cities need to be transformed from the sprawling, polluted and alienating cities that they are becoming’, (House of Representatives Standing Committee on Environment and Heritage 2003 -2004 submission 162, p.18).

This is, of course, despite the fact that it is in the suburbs or on the fringes of cities that the majority of Australians live\(^\text{16}\). A number of submissions noted high density urban living is reserved for a privileged minority who have the financial resources to burden the cost. As submission 62 from the Perth Area Consultative Committee pointed out ‘Perth’s outer suburbs are being abandoned by young, wealthy professionals’ (ibid submission 62, p.2) who are choosing to live close to the central city with its ‘stimulating environments, high amenity and lifestyle factors’ (ibid submission 62, p. 2). So what this means for one local NGO is that, ‘Urban consolidation policies and rising incomes have enabled more affluent people to embrace high-rise apartment accommodation in the inner city of Melbourne’ and as a result the gap is widening between different income levels in Australia and:

\(^{16}\text{Of the 7.9 million households living in private dwellings in Australia in 2008, 79% lived in separate houses, 11% flats, units or apartments and 9% in semi detached, row or townhouses (Australian Bureau of Statistics, 2008, p. 310)}\)
…these divisions are being played out geographically in our cities with the poor again being most isolated and enduring the worst housing and community facilities’ (ibid submission 123, p.3).

And for the Australian Bicycle Council there is no difficulty with the wealthy becoming more privileged because, ‘In many European countries, car-free residential developments are now fetching higher prices than conventional driveway homes’, (ibid submission 70, p.7). It is widely acknowledge that inner city areas are rich in infrastructure while the suburbs and fringe are poor but rather than framing this in terms of distributional equity what the above demonstrates is that sustainability and privilege can and are easily aligned. But even further than this because the suburbs and the fringe are characterised as bland and monotonous, inefficient and isolated so too are the people who live there.

7.2.4 The ‘Social’ costs of sprawl

Use of the word ‘sprawl’ therefore effectively homogenises the suburbs and the urban rural fringe. All are ‘unsatisfactory’, ‘characterless’, ‘inadequate’ and ‘consumptive’. And so the people who live there are characterised that way as well. Frequent use of the modifier ‘the’ before ‘sprawl’ simply adds to this. Social costs accompanying the sprawl are often pointed out matter of factly, as though they are an inevitable result of the sprawl. Dominant amongst the social costs is automobile dependence – as noted by one State NGO, ‘Opening up more land on the fringe is not a sustainable option for affordable housing and simply locks new homeowners into car dependence’ (ibid submission 194, p.4). The private motor car is identified in a number of submissions as the main cause of unsustainability and so once again they proposed a simple shift from private car to cycling, walking and integrated public transport through the development of ‘urban villages’. The benefits include reduced pollution, increased space for urban green zones, ‘community’ spaces and a healthier, more active population. And so for one consultant:

…the use of the private car tends to isolate individuals and conversely that facilities within walking distance creates a casual interaction that can promote community development. To foster this sense of community re-planning our cities should therefore treat the question of public transport as a priority (ibid submission 79, p. 3).
Density and ‘community’ are here conflated demonstrating an unsubstantiated leap from ‘face-to-face contact – at best acquaintanceship – to community engagement and participation’, (Ziller 2004, p. 471) which is characteristic of the broader sustainable city discourse, as outlined in chapter 6.

But along with the promise of ‘community’ there are also implications for health. As one academic suggested, along with high levels of resource use:

The human cost of low density lifestyles involve health and social dysfunction such as obesity and isolation’ (House of Representatives Standing Committee on Environment and Heritage 2003–2004 submission 64, p. 1).

Isolation and social dysfunction as a result of urban sprawl was in fact a major theme during the Inquiry. As pointed out by one consultant:

…urban sprawl on fringes of large cities generates a wide range of significant social and environmental impacts. Poor planning results in isolated “poverty traps” on the periphery of large cities, where transport costs and social infrastructure is often poor (ibid Submission 22, p. 1).

In a similar way submission 60 identified, ‘low levels of social services, reduced social support and lack of opportunities for social interaction as characteristic of low density urban developments. The submission also noted a, ‘Concentration of persons and households of socio economic disadvantage in fringe urban locations’ along with, ‘Loss of identity and a sense of place’ (ibid submission 60, p. 18). But added to this the Southern Sydney Regional Organisation of Councils also noted:

…the consequent social isolation often leads to boredom and anti-social behaviour – crime, domestic violence. Properties on the fringe are usually cheaper to buy, but not necessarily cheap to live in and thus encourage, and then entrench, social stratification” (ibid submission 150, p.11).

‘Sprawl’ is, therefore, identified as a site of locational disadvantage, which is contrasted to more advantaged locations. As the Perth Area Consultative Committee argued in evidence before the inquiry - ‘unrestrained urban sprawl leads to locational disadvantage, so you have high-income, high-skill jobs in the middle and low-income, low-skill areas on the outside’ (House of Representatives Standing Committee on Environment and Heritage 2004 – 2005 31st March 2005, p. EH21)
And so in summary, poverty, isolation, loss of identity, boredom, crime, domestic violence, social stratification, marginalisation, disadvantage, a characterless landscape, blandness, are all of the attributes of the ‘sprawl’, or the ‘outside’. And for most participants the solution was simply to reverse the situation. As suggested by one NGO ‘Density “done-right” can result in increased tax revenue, expanded employment, expanded housing opportunities, additional public amenities and revitalization of neglected areas’ (House of Representatives Standing Committee on Environment and Heritage 2003 – 2004 submission 171, p. 17). And so the ‘not sprawl’, or the opposite is characterised as involving ‘…liveable forms of residential development such as town houses, duplexes, unit blocks with communal recreational areas close to shops and public transport all with a ‘village atmosphere’ – instead of the “1/4 acre block of dirt” (ibid submission 16, p. 1). Or ‘…vertical land use opportunities should be exploited to minimize sprawl (ibid submission 46, p. 2). Vertical or ‘spare capacity’ as opposed to horizontal growth was also promoted in a private submission that based their argument on the ‘fact’ that density is a key indicator of sustainable cities (ibid submission 65, p. 3). So what is required, according to Environment Business Australia is, ‘…greater understanding of why people choose to live in featureless dormitory suburbs rather than the vibrant city centres’ (ibid submission 92, p.9). These vibrant city centres are also more sustainable as submission 40 from Local Government pointed out, ‘Built up areas of exiting (sic) cities well served by public transport are already inherently more sustainable than urban sprawl’ (ibid submission 40, p. 5). A point also reiterated in the Environment Business Australia’s submission which, instead of ‘featureless dormitory suburbs’, promoted:

Denser city centres, such as seen in most of Europe, with containment of commercial, office and residential buildings on main streets, provide a greater sense of community. They are also more practical in some cases with elderly people living above shops or health care centres, and with streetscapes featuring specialised shops (butchers, bakers, greengrocers, etc). This approach increases affordability, decreases urban sprawl, facilitates access, and adds to the sense of vibrancy of cities (ibid submission 92, p. 9).

Key descriptors at work here include village, community, liveable, vibrant all of which stand in marked contrast to those used to describe the suburbs and the fringe.
7.3 Locating disadvantage

What all of the above demonstrates is while there is a diversity of arguments and positions on the impacts of urban sprawl because of the way participants maintained a way of talking about sprawl – based around the storylines of decline or control (where control represents ‘hope’) the focus became one of how to control sprawl. The problems associated with the ‘unsustainability’ of cities were therefore framed spatially and the dominant focus was on changing the form of cities as a way of delivering ‘equitable outcomes’ rather than consider structural or political questions like – why is it that cities are increasingly inequitable? What can be done to make cities more equitable?

And so in many submissions ‘disadvantage’ is understood as being the result of urban form – or to restate the storyline - the further one lives from ‘vibrant’ inner city centres the more disadvantaged you are. So here disadvantage is effectively put at a distance – existing somewhere ‘out there’ in the sprawl. And ‘out there’ is effectively a non place – neglected, unliveable, boring, dependent, antisocial, ‘pockets of desperation’ (ibid submission 115, p.), where people have no sense of community or of place. And so to address disadvantage what is needed is a reversal – not sprawl. Concerns about social equity that could or cannot be explained spatially (or in terms of automobile use) were effectively absent or overlooked in the inquiry. As examples, submission 36 from a private individual, and submissions 75 and 110 from local community groups complained about the health impacts of wood fired heaters and burning wood in cities but because they were framed in terms of equity (or the right to clean air) they simply fell off the agenda. Equity is conflated with urban form, or as the Bicycle Federation of Australia argued, ‘…Poor land use planning contributes to transport systems which are not sustainable and which discourage physical activity’, and so ‘Increasing the use of sustainable transport modes results in communities that are healthier, more ‘neighbourly’, more equitable and more sustainable’ (ibid submission 167, p.1). This does not mean that concerns about health fell of the agenda during the inquiry because a healthy city is a central component of the sustainable city, but rather that it needed to be framed within the dominant storyline. Health became a problem of city form – too many inactive people as a result of automobile dependence – leading to a whole range of health impacts – including obesity, inactivity, loneliness and boredom. As the CSIRO put it, ‘Creative designs for new suburbs must make sedentary lifestyles more
difficult and lure people out onto the streets into active healthy communities and rewarding lifestyles 
(ibid submission 91, p. 22). This position was endorsed in submission 18 from Central Sydney Area 
Health Service, submission 64 from an academic, submission 70 from the Australian Bicycle Council, 
submission 106 from Western Sydney Area Health Service, submission 115 from Western Sydney 
Regional Organisation of Councils, submission 145 from the Federal Government Department of Health, 
Ageing, submission 154 from the ACT Government, submission 176 from the Bicycle federation of 
Australia and submission 176 from a private individual.

Issues of affordable housing and of an ageing population are seen as ‘problems’ that should not stand in 
the way of achieving sustainability. An ageing population is simply seen as an excuse for one NGO 
which suggested, ‘…the federal Government stops using the ageing of the population as an excuse to 
keep building Australia’s population beyond its carrying capacity’ (ibid submission 180, p.2). And for 
another NGO ‘…housing affordability cannot be a driving force in major inner cities. Policies need to be 
implemented for the socially disadvantaged but this is a separate issue’ (ibid submission 81, p. 2). For 
this NGO focussing on housing affordability was seen as a luxury that could work to undermine the 
biodiversity values of ‘designated sensitive areas’ on the Gold Coast. Provision of sustainable housing, 
however, was seen as important for another NGO concerned about public transport, not because of equity 
concerns but rather because it ‘…minimises travel distances, and helps prevent transport becoming a 
social service to deliver economic equity’ (ibid submission 46, p. 3).

The focus is, therefore, almost entirely on changing the form of cities rather than addressing distributional 
inequalities as they currently exist. The framing of the problem as a problem of sprawl meant that 
questions of distributional equity did not fit easily within the dominant storyline. As one academic 
pointed out, “There is no shortage of instruments, such as progressive income tax and wealth taxation, 
social security and ‘social wage’ expenditures, prices and incomes policies and measures ... [and] There is 
no fundamental difficulty in linking the use of such instruments to policies with a more explicitly spatial 
dimension – such as job-creation and community development programs targeted to disadvantaged 
localities” (ibid submission 132, p. 10). The problem was that such strategies were, and are not, 
considered because of the overriding focus on reducing sprawl and increasing efficiency. This focus also
renders other inequalities that exist in other parts of the city invisible (homelessness for example) by defining advantage and disadvantage spatially. Disadvantage in the inner city could only be an aberration because density is equated with advantage. However, as Marcuse has suggested:

“sustainability” is a trap. It suggests all humanity has a similar interest in “sustainable housing” or “sustainable urban development”; that if we all simply recognized our common interests everything would be fine, we could end poverty, exploitation, segregation, inadequate housing, congestion, ugliness, abandonment and homelessness. Yet, in these areas, the idea of universal acceptance of meaningful goals is a chimera. Housing and urban development are conflict-laden arenas: what benefits one hurts another (Marcuse 1998, pp. 104-105).

But even further than this the dominant storyline places the blame for the unsustainability of cities quite squarely on the shoulders of those who live in ‘the sprawl’. As one representative from the sustainable transport coalition warns - in 10 years petrol will be $10 a litre. This ‘…will affect a lot of people on the fringes of our big cities in major ways’ (House of Representatives Standing Committee on Environment and Heritage 2004 – 2005, 29th April 2004 p. EH 19). He goes on to add:

They will be stuffed, really. They will have to find a job closer to home, which will be hard. They will try and sell their houses to go into town, maybe, or into an apartment closer to the city (ibid p. EH 20).

His ‘solution’ is to increase the cost of petrol now as a way of discouraging people from living ‘unsustainably’ on the urban fringe. The question sustainability for whom is pertinent here.

The rhetoric therefore revolves around a tale of two cities (or two storylines) – one advantaged and one disadvantaged but where the disadvantaged simply need to become more like those who live either in vibrant inner city centres, or in apartment blocks close to public transport and other services, who live in neighbourhoods that have a sense of community and of place. What community means in this context is of course rarely articulated. A sustainable development is described by one local government witness as a ‘village’ tower on the Gold Coast:

People live in their apartment, go downstairs, have breakfast in the café and walk across the road – the children go to school down the road and the parents are in an office block just opposite the school. This is the sort of integration that we are looking at, so that people do not have to get in their car on a daily basis and drive 35 or 50 kilometres…to get to their workplace (ibid 6th April, 2004, p. EH22).
But the ‘village tower’ has other merits as well – “By urbanising that one area and densifying that one building we are saving our ‘green behind the gold’. We are protecting that area because we are containing urban sprawl” (ibid 6th April, 2004 p. EH22). So ‘people’ are contained to ‘protect’ the amenity of the area and the people being contained are clearly a dual income nuclear family with enough income to breakfast in a café and live in an apartment on the Gold coast.

What becomes evident in the above discussion is the way in which contributions to the Inquiry mirrored the arguments around sprawl versus containment as outlined in Chapter 6. It also demonstrates the way in which storylines function as ‘short-hand constructions’ (Fischer 2003, p. 86), reducing the complexity of a policy problem while at the same time allowing discussion to take place amongst actors with often quite disparate interests. The term sprawl, a metaphor to denote all that is wrong with cities, functioned to evoke the dominant storylines of decline versus control, allowing participants from diverse backgrounds – industry, business, government, NGO’s and private individuals to engage in discussion even though their interests and concerns were often quite different, because, as Hajer points out, ‘…a storyline combines elements of the various discourses into a more or less coherent whole, thus concealing the discursive complexity (Hajer, 2006, p. 70).

The dominant storyline did not, however, go entirely unchallenged. A key tactic used by participants was a simple reversal, or the development of a counter story that referred to the dominant storyline but was structured around its opposite or its retelling. Counter storylines needed to embrace or encapsulate as many ‘sustainability’ issues as they could and to retell the storyline within the framework of decline and control, sprawl versus containment, because as Fischer notes, …people who challenge the dominant storyline are expected to position their contributions in terms of established categories. Indeed, this is the primary way a hegemonic discourse exercises it (sic) power’ (Fischer 2003 p. 88). This goes some way to explaining why single-issue submissions failed to gain traction during the inquiry because they simply were not far reaching enough to engage in and challenge the dominant storyline. This was also true of ‘anti-stories’, (Roe 1989) those contributions that critiqued or refuted the dominant storyline without providing an alternative.
7.4 Challenging the Dominant Storylines

Housing developers were not surprisingly amongst the most outspoken critics of the focus on ‘sprawl’ in the discussion paper. The Urban Development Institute of Australia, for instance, argued that the Discussion paper ‘reflected popular views about the nature of urban development and the choices available, some of which do not stand up to close scrutiny or detailed study’ (House of Representatives Standing Committee on Environment and Heritage 2003-2004, submission 158, p. 2). In its submission the Institute focuses on the use of language suggesting that the discussion paper:

…”poses a series of solutions or offers interpretations with imperative language (must, undoubtedly, exceed, need), when the evidence for these positions is neither conclusive nor necessarily well understood. Consequently, some of the solutions may not be appropriate’ (ibid submission 158, p. 2).

One property developer simply restated the dominant storyline as a way of challenging it:

Urban sprawl has become an emotive term in city development with connotations of inefficiency, waste and dysfunction…Sprawl is seen as threatening to productive farm land on the edge of cities and areas of biodiversity. It is essential that the Inquiry has a more objective view of the concept of sprawl and the reality that many of the new communities that are being created within Australian cities are not producing areas of dysfunction or environmental degradation (ibid submission 51, p.2).

This was a direct challenge to the way in which ‘sprawl’ functions in sustainable city discourse suggesting that not only is use of the term emotive, it is also subjective and has little to do with what happens on the ground. In evidence before the public inquiry the same developer suggested that, ‘There is an aversion to urban sprawl in its current form, which in a sense the government created. They believe they do not have the funds to invest in infrastructure which growth creates ((House of Representatives Inquiry into Sustainable Cities 2004-2005 29th April 2004, p.EH48). He defines the urban growth boundary as ‘…a form of second-hand colonialism…coming through to Melbourne {from Britain} and then eventually our bureaucrats pick it up here’ (ibid, p. EH41). So here we have the casting of ‘government’ as the villain, (see Chapter 8) who on the basis of ideas borrowed from elsewhere
implement policies that hinder business and lead to inequities in infrastructure provision. The developer
argued that the main constraints hindering sustainable housing were therefore government interference
and lack of funding for infrastructure.

Large-scale master planned ‘sustainable’ communities on greenfield sites on the urban fringe were
promoted by property developers, one complaining that households living in outer suburbs are ‘severely
penalised’ through lack of spending on infrastructure. So the problem was ‘… the structure, not the
form (density) or location of urban development ((House of Representatives Standing Committee on
Environment and Heritage 2003-2004, submission 66, p. 7). This was an argument that was also put by
the Housing Industry Association in their submission (122). The submission argued that, ‘…urban
sprawl is often an emotive response to the aesthetics of fringe development that highlights location (or
perceived isolation) above all other factors in weighing up the cost of development. It fails to take into
consideration the benefits that well-planned development can provide (ibid submission 122, p.5). The
association complained about what they termed ‘planning creep’ and went on to identify:

‘…a worrying trend to “load” the development approval process with an ever growing list of
considerations, including sustainability. Planning systems are not capable of achieving all of the
desired outcomes through a misguided focus on development assessment. The proliferation of
planning regulations at the state and local government level and the emergence of a whole range
of environmental rating tools poses risks to efficiency of the building industry and the
affordability of its product (ibid submission 122, p.7).

It therefore called for a consistency and clarity in planning regulations and pointed to ‘widespread
industry distrust and user dissatisfaction with our planning systems’. The role of regulation the
association argued should serve to eliminate worst practice and the rest should be left to the market
‘through broader community education, market incentives and industry initiatives’ (ibid submission 122,
p.2).

Large-scale master planned communities appear at least on paper to tick all of the sustainability boxes,
even though they sit in opposition to the dominant storyline around sprawl versus containment. Not only
are they positioned as ‘ecologically sound’ and resource efficient, they also provide affordable housing on
greenfield sites with attention paid to building community facilities and community consultation
processes. Greenfield sites also offer opportunities to implement water and energy saving technologies that are difficult to retrofit onto existing housing stock. And so the property developers involved in the inquiry were keen to demonstrate that they were in fact sustainability leaders or heroes (see Chapter 8) and their submissions outlined their achievements (ibid submissions 17, 51, 66 and 71). Reluctance on the part of government to fund infrastructure on the urban fringe, along with an ad hoc and cumbersome regulatory environment constrains their ability to build and develop ‘sustainable communities’.

Other participants who also opposed the focus on sprawl in the discussion paper used a similar technique of challenging the focus on sprawl or containment by simply reversing the storyline. A submission from an NGO Save Our Suburbs expressed concerns ‘…that the policy of urban consolidation…which is now being imposed on local communities is leading to the premature destruction of perfectly good attractive older homes, as well as to the loss of many trees and gardens …this is not ecologically sustainable (ibid submission 196, p. 1). The environmental costs of increasing density were identified as the removal of the ability to produce food and to compost, destruction of gardens, increasing air pollution, the heat island effect, increased storm water run-off and removal of wildlife habitat. Social costs included increasing obesity, lack of space for physical activity and loss of character and amenities. Another state branch of the same organisation argued that increasing densities resulted in the homogenisation of communities, the loss of housing choice, increased traffic congestion, infrastructural overload, increased air and water pollution, and increased energy use. Another private submission attempted to counter the discussion papers position by pointing out ‘In view of the Paper’s attraction to higher density/transit approaches, it should be emphasized that experience with broad-scale ‘consolidation’ policy outcomes …does not inspire confidence (ibid submission 56, p.3) arguing that consolidation policies simply exacerbate existing problems in cities rather than solving them. Submission 77 from the Mordialloc Beaumaris Conservation League argued that it was:

…ironic that with Australia’s vast open spaces, 80% of the population is crammed into cities around the coastline, and by so doing, foul our own nest. The outward spread of residential development means that private and public open space in the cities is diminished because of the need, it is claimed, to curb urban sprawl, with older established suburbs using in-fill development (ibid submission 77, p. 1).
The solution in this particular case was to curb population growth and in particular immigration. In another joint submission from the Mordialloc-Beaumaris Conservation League together with the Kingston Conservation and Environment Coalition these arguments were reinforced:

Reducing block size in Victoria is seen as a means to reduce sprawl. The result is there is no longer space for trees that create shade and absorb CO2. Nor is there space for children to play, so they adjourn to the computer games and TV, eat, accumulate more calories, and get fat (*ibid* submission, 123, p. 4).

The submission also continued ‘Denser living does not decrease car usage and congestion, it increases it (*ibid*, submission 123, p. 6).

And so words used to challenge the dominant storyline included cramming (denoting crowded), ‘caged’ (submission 80, p. 2), squeezing (submission 196, p. 1) and piling. What is significant here is not only the reliance on emotive language but also the way in which these contributions were framed so clearly in terms of the storylines of decline or control. In reversing the dominant storyline – so that compaction denotes the storyline of decline - these arguments or storylines did have some influence the outcome of the Inquiry because they offered an alternative (see Chapter 9). However, by simply reversing the binary these storylines did not necessarily represent the middle ground and so, as I will argue in Chapter 9, they did not succeed in disrupting the dominant storyline enough to lead to clear alternative. The result of the Inquiry was instead a stalemate. Less successful were those submissions that attempted to critique, without necessarily offering an alternative, or a vision of what now needs to be done. Instead they increased the ambiguities of the issues (*Roe* 1989, p. 266).

This can be seen in attempts to broaden the terms of the debate. The generalised nature of the discussion paper and the fact that it was not only proposing an easy answer but also a one size fits all solution was highlighted by the City of Swan who pointed out that ‘…the questions posed within the discussion paper are difficult to answer on place specific base (sic), given the diversity of Australian communities and landscapes, and state planning legislation (*House of Representatives Standing Committee on Environment and Heritage* 2003-2004, submission 7, p. 3).
A dominant complaint levelled at the discussion paper was its overriding focus on environmental sustainability. The argument here was for a broadening of the scope of the discussions to integrate social, economic and environmental considerations. The contention that social and cultural sustainability was overlooked in the discussion paper was evident in a number of Local government submissions, including the City of Swan, Western Australia (submission 7) that complained about the emphasis on environmental issues such as waste, energy use, bushland preservation, transport, and water use at the expense of consideration of social and economic issues. Submission 161 suggested that an alternative title ‘Environmentally sustainable cities’ would be clearer. Submissions 20 (Shoalhaven City Council), 130 (City of Mandurah) and 131 (Brisbane City Council) also raised concerns about social equity and cultural diversity, while submission 147 from the city of Newcastle questioned the inclusion of highly subjective value statements like ‘preserve essentials of Australian lifestyle’ and asked ‘what are current lifestyle essentials and are they currently sustainable? (ibid submission 147, p.1). Submissions from two planning consultants (27, 95), the Australian Museum (43), a property developer (71), and a private submission (164) also shared these concerns. Submission 27 which focussed on triple line accounting, for instance, argued that local communities were not considered in the discussion paper and that the ‘journey towards sustainability will profoundly affect how people live work and play, they need to be involved in shaping these changes’ (ibid Submission 27, p. 7). The submission called for changes in the way governments interact with the community, with greater scope for constructive engagement, as opposed to traditional consultation processes. What was needed was good governance involving ‘cooperation all levels of government (and between departments within government), communities of interest, the business sector, resource managers and all its citizens (ibid submission 27, p. 5). Agenda setting is important here and the submission suggested that ‘In some cases, the agenda may be set by local communities, and the role of the government will be to support these activities with resources and to support capacity building (ibid submission 27, p. 9). Submission 164 complained that people were not considered in the discussion paper while Submission 95 argued that, ‘Much of the conventional thinking on sustainable development centres on the reduction of human impacts on the environment, however this approach is far to (sic) narrow and simplistic” (ibid submission 95, p.2). What was needed was integrated urban solutions and so, ‘discussions need to include both housing, community and employment and shopping infrastructure, urban design, transport,
community and public space, and visual amenity. These all interlink to influence a person’s sense of place and community and their capacity to change to sustainable practices’ and ‘They will remain in survival mode and continue with old habits’ (ibid submission 95, p. 5). Likewise the City of Playford, South Australia argued that the ‘social component of the urban environment requires greater emphasis’ (ibid submission 57, p. 1). It went on to call for an informed holistic national approach which empowers local communities and support for ‘a consultative multilayered, but connected process, rather than simply defining goals and objectives (ibid submission 57, p. 4). The Australian Museum emphasised cultural diversity arguing that, ‘The emphasis is on ecologies, planning and resource management, which are all necessary conditions in achieving sustainable urban communities’ but what was also needed was a consideration of social and cultural sustainability. It argued that:

Strong, variegated communities are necessary to build the capacities that can generate more sustainable futures, especially in cities that face complex problems relating to their economic, social and environmental bases. All too often, social sustainability falls off the agenda or is considered subordinate to environmental and economic issues, despite the fact that it underwrites individual and collective creativity and innovation that can deal with the challenges posed by increasing pressures from global, regional and local forces” (ibid submission 43, p.3).

All of these submissions therefore suggested that the discussion paper was not inclusive enough and argued for a broadening of the terms of the debate. As a result their impact on the outcomes of the Inquiry were limited (see Chapter 9).

Others participants sought to counter the dominant storyline by providing alternative evidence. Perhaps the most persuasive amongst these contributions was from the Urban Frontiers Program, University of Western Sydney. Representatives from the program argued that the easy acceptance of increasing densities as a panacea for sustainable cities was the result of a major withdrawal of funding for urban policy research, which has led to ‘…many of the key assumptions that underpin current urban policy and growth management strategies being based on little more than strongly held beliefs. Urban consolidation is a typical example (House of Representatives Standing Committee on Environment and Heritage 2003, submission 113, p.12). The submission pointed to the fact that areas of social disadvantage are emerging in middle ring suburbs, rather than the fringe where new master planned communities tended to attract
middle and higher income families purchasing their second or third home\textsuperscript{17} (ibid submission 113, p. 8). The submission called for ‘funded research to support evidence-based decision making’ (ibid sub 113, p. 3). The submission also raised concerns about social polarisation and argued that the dynamics of population change needed to be better understood in order to understand urban settlement patterns. The submission also points out that despite the fact that urban consolidation policy has been a major growth management policy in Australia’s largest cities for two decades there has been ‘…little systematic evaluation…to assess the sustainability claims of urban consolidation policy in Australia’ (ibid submission 113, p.5), an omission the program describes as a ‘remarkable gap’ in our knowledge of urban development. Housing affordability was a major concern in the submission and again the program called for more research. In an additional submission the program pointed out ‘… that the underlying assumption of a simple and causal relationship between higher density development and decreased car use and energy consumption is untested in the Australian context’ (ibid submission 170, p. 1). While not taking a position within the sprawl or consolidation debate, urban consolidation policies the submission argued reflect the fact that developers and investors are leading the market, rather than reflecting the preferences of Australian householders. Housing affordability and social polarisation were major concerns in the submissions. In evidence before the Inquiry they argued that ‘…piling people into more disadvantaged localities in some of our middle city areas - and that is where it is all emerging - then there is an issue as to whether that affects their health and wellbeing and the knock-on effects’ (House of Representatives Standing Committee on Environment and Heritage 2004-2005 27\textsuperscript{th} January 2004, p. EH 62). So for the Urban Frontiers Program at least the simple dichotomy between sprawl and not sprawl or advantage versus disadvantage does not necessarily hold up to close scrutiny and consequently the need for more research. Representatives from the program posed the question to the committee - do our urban policies really have a triple bottom line evaluation attached to them? (ibid p. EH 64). This is of course a direct challenge to the dominant storyline arguing for careful attention in particular to the way in which the ‘social’ is understood in sustainable city discourse. Rather than rely on the commonly accepted equation that car dependence equates to disadvantage and that low-density development leads to car dependence the program argued these assumptions needed to be placed under closer scrutiny. Scrutinised

\textsuperscript{17} This was a point reiterated during the public hearing by a Committee member who referred to it as the ‘“arc theory”’—the inner part of the city being gentrified and very expensive, the old suburbs decaying and people who can afford it going into the city fringe’. She then went on to pose the question to a representative from the Australian Capital Territory planning and land Authority - ‘I know that Canberra is much smaller, but are you seeing the same kind of social outcome—social stratification? (House of Representatives Standing Committee on Environment and Heritage 2004-2005 4\textsuperscript{th} March, 2004, p. EH 19)
using a framework based on equity considerations rather than an uncritical perspective on the spatial layout of cities would have an entirely different outcome.

Finally, the language used in the discussion paper was challenged by a small number of participants who pointed out that use of the word sprawl had already pre-empted the outcomes of the Inquiry. Submission 127, for instance, alerted the committee to ‘…the pitfalls that are built into our conventional language and assumptions’ (House of Representatives Standing Committee on Environment and Heritage 2003-2004, submission 127, P. 16). He argued that language is one of the most important methods of dealing with city and built environment issues’ (ibid submission 127, P. 18) and warned against oversimplifying ‘…in the interests of finding common ground and consensus’ a process which he describes as ‘dangerous’ (ibid submission 127, 16). Rather than ‘go along with generalisations and conventional assumptions’ he went on to warn the Committee to question propositions and reveal the hidden agendas (ibid submission 127, p. 18). He singled out term of reference 1 and argued against the use of the term ‘sprawl’ as follows:

This is a highly loaded statement that in a variety of ways pre-judges what is good and bad. It certainly anticipates that the inquiry will provide evidence urban development that extends in low-density form beyond the existing urban areas will have negative social and environmental effects (or impacts). “Sprawl is a highly pejorative term that should have no place in any genuine exploration of the issues before the committee (ibid submission 127, p. 16).

He is also highly critical of use of the term ‘urban settlements’ as it divorces those areas from their rural hinterland. This leads to an assumption that ‘we are dealing with a deterministic system within which we can take actions that will determine outcomes’ (sub 127, 17). In place of prescriptive outcomes he argues for ‘scenarios for sustainable futures’ (ibid submission 127, p. 17) or alternative storylines.

One private submission mirroring the same argument suggested that,…a term such as sprawl will close rather than open up possibilities for discussion, because it is used pejoratively, with ridicule even’ (ibid submission 56, p.2). The submission called for a ‘frank discussion of the desirability of higher density policies, or of alternative policies …aided by the use of more neutral terms. Certainly, terms with pre-judged conclusions should be avoided (ibid submission 56, p. 3). Another criticism came in a submission from the Warren Centre, Sydney University that pointed out that ‘Focusing only on easy
answers will not work’. The easy answers are, of course related to the dominant storyline – where it is a matter of implementing a range of strategies that appear to be broadly acceptable. For the Warren centre ‘‘Sprawl’’ is an unnecessary and emotional word as for many your (sic) families the single dwelling house on the ¼ acre block is a dream and a dream which governments would be well advised to support’ (ibid submission 73, p. 5). Even more specifically the Australian Council of National Trusts (ibid submission 136, p. 9) complained that the discussion paper presented ‘…too stark a choice between two seemingly opposed possibilities – urban in-fill with all its adverse impacts on heritage values or environmental disaster’. And this, of course, brings us back to storylines.

7.5 Conclusion

In this chapter I have considered how the dominant sustainable city storylines functioned in a specific discussion around the future of Australian cities. What becomes clear is that the term ‘sprawl’ and the storylines that can be derived from it effectively allowed discussion to take place. It allowed participants with different interests and concerns, ideas and aspirations to engage in discussion and debate using a common language. The discussion therefore demonstrated the way in which storylines provide a way of simplifying and unifying a complex range of information into a plot that ‘sounds right’, therefore allowing for discursive closure (Hajer 1995, p. 63. In this particular instance, however, the dominant storylines did not go entirely unchallenged. Objections involved either reversing the ordering of the storyline, drawing on the discursive resources available in the dominant storyline to argue against the compact city as a sustainable outcome, offering alternative evidence to suggest flaws in the logic of the dominant storyline or by simply challenging the language used. These critiques offered the possibility of an alternative storylines or scenarios, framed in terms of equity rather than sprawl. The impact of these challenges to the dominant storyline will be explored in chapter 9, which is concerned with the outcome of the Inquiry focussing in particular on the final report.

In chapter 8, I take a step back and consider questions of who more closely - who was involved in the inquiry and whose voices were absent, before turning to an examination of the positions and cultural stereotypes that were available to participants in the Inquiry and how they were put to use. This is
important because, as has become clear in the above discussion in contributions to the Inquiry there was an overriding focus on ‘people’ – their choices, lifestyles, aspirations, how they travelled, their access to resources and even what they did in their homes. Who these ‘people’ are, is rarely specified, they appear instead as characters in the dominant storylines and usually as the ‘villains’. This allowed participants to position themselves either as ‘victims’ or ‘heroes’ simply because the ‘villain’ had already been identified.
The Sustainable City: Identifying the Villains

8.0 Introduction

As noted in chapter 7, the 2003-2005 House of Representatives Standing Committee Inquiry into sustainable cities called for discussion and input ‘from a wide range of professions, community groups, local and state governments, researchers, businesses, industry associations and individuals’ (House of Representatives Standing Committee on Environment and Heritage 2003, P. 2). Noticeably absent from the discussion, however, were voices from the social welfare sector\(^{18}\), from consumer groups or from representatives from indigenous and ethnic organisations. One of the reasons for this absence I have argued is that the boundaries around how discussions should proceed were firmly established from the outset in the discussion paper.

This chapter begins by examining in more detail who participated in the Inquiry. At one level this could appear to be a straightforward exercise involving a description of who was involved along with an analysis of who wasn’t as a way of drawing out implications. However, as the following discussion reveals it is fraught with difficulties as is any act of classification. It therefore became much more useful to consider the ‘who’ not as fixed categories, or as roles, but as positions. The chapter therefore shifts towards an exploration of how participants positioned themselves and others within the dominant storylines.

8.1 Involving the Public

As noted in chapter 4 one of the roles of Parliamentary Inquiries in Australia is to obtain information from government agencies, peak bodies and experts on the matter under investigation. The understanding is that through this process Parliament can also be better informed about community problems and attitudes by providing a public forum for the presentation of views of individual citizens and interest

\(^{18}\) There was one submission from an NGO, W.A. collaboration an umbrella organization representing environmental, social and trade union organisations. During the public hearings, W.A. collaboration presented evidence with a member organization, Shelter, W.A. The Concerns of this organization are principally housing affordability. No Peak Social Welfare organisations were represented.
groups. During the Inquiry under investigation 196 submissions were received, representing the views of a broad range of individuals, organisations and government. Table 8.1 provides a summary of these contributions.

Table 8.1: Submissions by Category

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of Submissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non Government Organisations</td>
<td>45*</td>
</tr>
<tr>
<td>Private Individuals</td>
<td>42</td>
</tr>
<tr>
<td>Local Government</td>
<td>29</td>
</tr>
<tr>
<td>Industry, including peak bodies</td>
<td>25**</td>
</tr>
<tr>
<td>Academic***</td>
<td>15****</td>
</tr>
<tr>
<td>State or Territory Government department or agency</td>
<td>11</td>
</tr>
<tr>
<td>Consultant</td>
<td>10</td>
</tr>
<tr>
<td>Federal government department or agency</td>
<td>8</td>
</tr>
<tr>
<td>Professional Associations</td>
<td>6*****</td>
</tr>
<tr>
<td>Business, including peak bodies and think tanks</td>
<td>4</td>
</tr>
<tr>
<td>Political Party branches</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>196</td>
</tr>
</tbody>
</table>

* Of these 4 participants completed 2 submissions and another 3 submissions
** Of these 1 participant completed 2 submissions and another 3 submissions.
*** Where Academic affiliation was identified
**** Of these 1 participant completed 2 submissions
***** Of these 1 participant completed 3 submissions

The majority of submissions therefore came from NGO’s, followed by private individuals, local Government and then industry. However, these categories, in and of themselves, reveal little about the interests and concerns of the contributors involved. An alternative approach to classification could therefore be by sector, however, approached in this way discounts the large number of submission, including private submissions that addressed all of the terms of reference or which did not claim affiliation with any one sector or organisation. Classifying NGO’s is also fraught with difficulty. For
instance, which submissions could be said to represent an environmental NGO depends almost entirely on the way in which ‘environment’ is defined in the first place. Organisations such as Save our Suburbs; an organisation concerned with the impact of densification on the amenity of suburbs is a case in point. Classification in terms of sectors also does not allow the nuances of argument to be drawn out. As an example on day 3 of the public Inquiry on the 19th February 2004, two representatives from the Australian Automobile Association presented with a representative from the international Association of Public Transport. As one would expect, the arguments presented reflected different values, demonstrating again the limitations of classification according to sector. Another reason why classification according to sector is not at all clear-cut is because even if an organisation represented a particular industry, or portfolio in the case of government departments, the content of submissions and during evidence moved beyond sectoral concerns to consider the future of Australian cities and so were quite broad. As I have argued previously most participants drew on and positioned themselves within the dominant storylines and therefore reiterated aspects of the dominant storyline beyond the interests or concerns of the sector being represented. An alternative approach could be to classify NGO’s and organisations according to their size and reach, however, once again this tells us little about the organisations interests and values, or does it allow for consideration of the private submissions, or the nuances of argument. Despite the bluntness of any system of classification, however, what stands out is that the dominant focus in discussions during the public hearings was housing, urban development and planning (see Table 8.3). And despite the number of private submissions during the initial stages of the inquiry, only one of those participants was invited to present evidence during the public hearings19 (see Table 8.2). This of course raises question about how public the public inquiry was.

The public hearings were held over 15 days in Sydney (3), Brisbane, (1) Melbourne (1), Perth (1), Adelaide (1) and Canberra (7). There were no hearings in Hobart or Darwin, two of the other capital cities. There were also three roundtable discussions in Brisbane, Melbourne and Sydney, one on health and wellbeing (Sydney) with health professionals and two with representatives from local government. These have not been included in table 8.2.

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19 On the last day of the public Inquiry two academics were invited to present both working in a private capacity.
Table 8.2: Participation in public Hearings by category

<table>
<thead>
<tr>
<th>Category</th>
<th>No. of participants*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non Government Organisations</td>
<td>18**</td>
</tr>
<tr>
<td>Private Individuals</td>
<td>3***</td>
</tr>
<tr>
<td>Local Government</td>
<td>1****</td>
</tr>
<tr>
<td>Industry, including peak bodies</td>
<td>10</td>
</tr>
<tr>
<td>Academic</td>
<td>4</td>
</tr>
<tr>
<td>State or Territory Government department or agency</td>
<td>8</td>
</tr>
<tr>
<td>Professional Associations</td>
<td>4</td>
</tr>
<tr>
<td>Consultant</td>
<td>3</td>
</tr>
<tr>
<td>Federal government department or agency</td>
<td>3</td>
</tr>
<tr>
<td>Business, including peak bodies and think tanks</td>
<td>2</td>
</tr>
<tr>
<td>Political Party branches</td>
<td>0</td>
</tr>
</tbody>
</table>

* Where there was institutional or organisational affiliation counted as one
** One of these organisations were not invited as witnesses but were given time to present their case against a proposed freeway in Canberra
*** Two academics who did not provide submissions were invited to provide evidence at the public hearings, appearing in a private capacity
**** Not including the two roundtable discussions

Table 8.3: Participation in public Inquiry by Sector

<table>
<thead>
<tr>
<th>Sector</th>
<th>Number of participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing, urban development and planning</td>
<td>23</td>
</tr>
<tr>
<td>Transport</td>
<td>11</td>
</tr>
<tr>
<td>Environment and conservation</td>
<td>7</td>
</tr>
<tr>
<td>Energy</td>
<td>3</td>
</tr>
<tr>
<td>Food</td>
<td>3</td>
</tr>
<tr>
<td>Community development and social welfare*</td>
<td>3*</td>
</tr>
<tr>
<td>Water</td>
<td>2</td>
</tr>
<tr>
<td>Health</td>
<td>2</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>2</td>
</tr>
</tbody>
</table>

* This included one academic witness and W.A. Collaboration and Shelter W.A.

What became clear in the discussion in Chapter 7 during the Inquiry there was an overriding focus on ‘people’ – their choices, lifestyles, aspirations, how they travelled, their access to resources and even what they did in their homes and even how they cared for their bodies. Who these ‘people’ are, is rarely specified, they appear instead as characters in the dominant storylines. This can be, perhaps, best expressed in a question by a Committee member during the public Inquiry to representatives from the State Government of Victoria:
The theory is right: we do not want urban sprawl and we want to encourage medium to high density housing...these plans look great on paper but the people are not behind them. There is still resistance from the people. What level of consultation takes place? It is one of those things where you can make all of these plans, you can discuss with the other political authorities—being the councils—but the residents themselves are angry. There are countless examples that I know of throughout the eastern suburbs, let alone anywhere else, where the case has not been made and the people have not been won over. What are you doing in order to bring the people with you on the plan rather than just simply saying, 'This is a great theory, let’s go with it'? (House of Representatives Standing Committee on Environment and Heritage 2004-2005, 16th March 2004, P. EH 31).

8.2 Consulting the Community

So what of those people who do not embrace visions of sustainable communities? ‘They’ were consistently characterised as ill-informed and resistant to change. As one local government representative pointed out during public hearings:

‘…there seems to be a divide between what people want...and what governments want, in terms of pushing people into higher density living. I would say that perhaps the vocal communities are the people who have an older mind frame...Young people like me do not generally speak out about these sorts of things. However, we like medium-density and high density living. I live in a unit, and I like it. Most people of my age and my friends feel the same: we do not want to have to look after a backyard, but will contribute on community days to bush care and stuff like that. It is changing” (ibid, 27th January 2004, p.EH57).

In this extract being ill informed is a problem of age: of being out of touch. And while this particular witness concedes, ‘There is a certain degree to which we should listen to their concerns, but sometimes we have to look at the facts and do what is best for the whole community” (ibid p. EH57). Here we have an example of the way in which inclusive language, framed in terms of the ‘whole’ community, disqualifies oppositional individuals or voices – we need to listen, but the points of view are in fact not in line with the ‘facts’ or what is best for the ‘whole’ community. Those who resist are therefore ‘vocal’ rather than cooperative.

Another example was from the Perth Area Consultative Committee, who, having developed a proposal for a sustainable community in Joondaloo in Western Australia, complained in their submission that the proposals based on ‘world best practice sustainable urban principles’, ‘... were overturned by pressure from local residents who saw the changes as threatening to their existing lifestyle’ (House of
Representatives Standing Committee on Environment and Heritage 2003 – 2004 submission 62, p.3). In evidence before the Inquiry they continued, ‘People bought there because they liked the trees and open living. They felt that these was under threat (sic). They viewed high density as being multi rise apartments – in effect, really high density’ (House of Representatives Standing Committee on Environment and Heritage 2004- 2005, 31st March 2005 p. EH 24) but despite the local opposition:

The concept was very good. The material that came out with it was consistent with best practice material that we see being implemented all over the world. It was overturned by some very vocal action groups and by politics. The truth was a casualty in a lot of the information going around’ (ibid, p. EH24).

So while there was community opposition it is disqualified because it was not in line with the ‘truth’ or world best practice. Those who opposed the proposal were once again vocal, and in this case also political. The submission went on to argue however that, ‘Sustainable development strategies that favour local approaches and are small scale with bottom up involvement and commitment have the most chance of success’ (House of Representatives Standing Committee on Environment and Heritage 2003 – 2004 Submission, 62, p.6). And so here we once again we find the familiar language of inclusion – suggesting that sustainability is consensual and therefore above politics - it’s just that in this case consensus or the ‘truth’ could not be reached. Alternative perspective or interests are discounted because they do not fit neatly within the dominant storyline.

As noted above, the Committee members also acknowledged community opposition to urban containment policies during the public Inquiry. For Instance, the Victorian State Government’s Melbourne 2030 strategy was questioned not only by the chair but also by Committee members:

I have to tell you that it does put pressure on various communities. You are moving to a concept of having these transit hubs around the place, which is great, but you have residential developments that are going to take place as well. There is angst amongst the local community about all of a sudden having a 14-storey building next to a railway station or a shopping centre. It looks great on paper, but the ratepayers out there are still not behind it all. There is that resistance (House of Representatives Standing Committee on Environment and Heritage: 2004-2005 16th March, 2004, p. EH8)

And the response from a state government representative:
The idea of an activity centre is that everything can happen in that one area and people do not need to travel a long distance. That obviously has environmental benefits. It would also have social benefits—community building and those sorts of benefits. Broadly speaking, it is a good policy (ibid 16th March, 2004, p. EH8-9).

So the policy is ‘good’ because it will not only reduce the need to travel, but it will also have environmental and social benefits. But what these benefits are, what is meant by community building, or who in fact the community is, is never entirely spelled out. A particular understanding of community and not necessarily an inclusive one is being harnessed here. ‘Communities’ who opposed the policy, or who were considered to be unaware of the benefits of it, were understood to be acting individually, not as ‘communities’. Once again we see an example of a restatement of elements of the dominant storyline as a way of rendering invisible any sort of opposition.

Community resistance to ‘sustainable city’ policies was usually understood as a behavioural problem resulting from a lack of awareness, lack of sophistication, ignorance, lack of common sense or simply poor consumer choice. The Royal Australian Institute of Architects for instance argued, ‘They do not know: are they good or bad citizens? They need measurables’ (ibid, 11th March 2004, p. EH4) and likewise representatives from the building industry suggested that ‘…most home owners are not sophisticated enough to fully understand the implications of the benefit of higher initial capital costs’ (ibid, 1st April 2004, p. EH11). Submission 11 from a private individual argued that perhaps force was necessary because:

…the public on the whole are not fully aware of the real need to change and how their own lives impact negatively on the environment (House of Representatives Standing Committee on Environment and Heritage 2003 – 2004, submission 11, p. 6).

But, as suggested by an energy provider it is also poor consumer choice – ‘Traditionally, when people come into our gas shops they are much more interested in what the colour is and whether it fits’ (House of Representatives Standing Committee on Environment and Heritage 2004-2005, 8th June 2004, p.EH53). Or is it simply lack of common sense? As one private submission pointed out, ‘With higher levels of resource consumption and lower levels of common sense, the result becomes inevitable – chronic levels of waste and a ‘disposable society’ (House of Representatives Standing Committee on Environment and Heritage 2003 – 2004, submission 85, p. 9).
The same is true of housing choice, as submission 190 pointed out:

Many Australians aspire to own their own house. This is symptomatic of cultural norms and links to financial security. Unfortunately, this leads to a housing market that is full of uneducated purchases (ibid submission 190, p. 16).

Change, according to one local government representative will require, ‘…investment in resourcing the processes that we want to undertake to change behaviours and practices by investing in some education and perhaps even early childhood education’ (House of Representatives Standing Committee on Environment and Heritage 2004-2005, 16th March, p. EH102). So behavioural change is a matter of education and awareness raising because often the community does not know what is good for them. And so ‘Community awareness campaigns – especially those involving schoolchildren…are an essential element if public behaviour is to be influenced towards better environmental or health outcomes’ (House of Representatives Standing Committee on Environment and Heritage 2003 – 2004, submission 186, p. 9). And once armed with the right kind of knowledge then they will make the right decisions. As submission 37 pointed out, ‘Knowledge is power, a consumer with the knowledge will seek eco efficiency’ (ibid submission 37, p. 9).

Once educated or aware ‘people’ are expected to behave responsibly. As Leichhardt City Council pointed out in their submission, ‘A lack of awareness and understanding of the problem is one of the major impediments to achieving more sustainable cities’ and so the ‘remedy’ needed to include education, policy and market mechanisms to encourage ‘critical reflection of lifestyles and values (ibid, submission 118, p. 2). No one should be excluded from the process because ultimately it is about ‘our’ collective and individual well-being and so everyone needed to be involved. As one local government witness expressed it, ‘…it seems we have built a mandate for regulation …But from the individual’s point of view it is: ‘I am not going to be the well-intentioned loner. I want one in, all in’ (House of Representatives Standing Committee on Environment and Heritage 2004-2005, 6th April, 2004, p. EH34). Or put another way the federal government’s Department of Environment and Heritage in its submission argued that:
All Australians have a responsibility to make the necessary changes to our everyday activities to improve sustainability. It is therefore important to provide the community and individuals with the information required to make informed choices for sustainable city living’ (House of Representatives Standing Committee on Environment and Heritage 2003 – 2004 submission 157, p. 25)

This is a position that assumes that all Australians have access to the same resources in the first place and so all individuals need to simply be informed about the need to change. Hence the emphasis on the individual and the ‘local’ as the appropriate scale for implementation rather than top down government led approaches because sustainability is simply a matter of individuals changing their behaviour. As one academic pointed out:

Visions of sustainable cities need to be shaped not from the air but from ground level, in the street, from the front door. Instead of starting with the whole pattern and working down to the units of which it is composed, it is best to start with the units and work up to the systems in which they are organized (ibid submission 74, p.3).

This would require ‘greater cooperation’ according to one local government representative, because:

There needs to be greater community acceptance about past and unsustainable practices, and about shifting towards greater sustainability. One of the big issues we face is trying to increase densities to support sustainability. That often flies in the face of community expectations and market expectations. It is a question of how you bring the community and the market around to understanding that increasing densities, hopefully also produce better urban environments” (House of Representatives Standing Committee on Environment and Heritage 2004-2005, 16th March 2004 p. EH85)

The question is not whether increasing densities will lead to desirable outcomes but rather how to deal with market resistance. So it is individual consumers who need to take on board the ‘sustainability message’ not industry, business or government. Social equity will apparently be delivered through ‘good’ consumer choice. However, as Timothy Luke has pointed out sustainable development acts as a marketing vehicle, with the support of governments, to increase corporate profits through a process of capturing and convincing consumers about the merits of “green” consumerism. According to Luke, ‘Green consumer goods can be supplied once these new subjects are recognized as having the sustainable demand functions expected from ‘good consumers’ (Luke 2005, p. 234). So the task is not so much about reducing overall consumption but rather ensuring that the ‘right’, ‘correct’ and ‘good’ choices are made. There are ‘correct’ and appropriate behaviours and so according to one witness at the inquiry
‘…we need a regulatory regime that requires the correct thing to be done’ (House of Representatives Standing Committee on Environment and Heritage 2004-2005, 31st March 2005 Session 3, p. EH34).

The dominant focus in submissions and in the public inquiry was on regulatory mechanisms or tools for achieving sustainability through individual consumers changing their behaviour rather than targeting industry or business. The Australian Water Association argued for instance, ‘As beliefs are often shaped by behaviour, inducing appropriate behaviours through regulation can lead to consumers internalizing beliefs about conservation, (House of Representatives Standing Committee on Environment and Heritage 2003 – 2004, submission 112 p. 6). Full cost pricing was also encouraged by some participants and as one local government witness put it, ‘We do not need expensive education programs – we have one sitting on the price tag’ (House of Representatives Standing Committee on Environment and Heritage 2004-2005, 6th April, 2004, p.EH 18). And these price tags needed to be large as the Brisbane Institut proposed: ‘Increase the cost of excess water usage 10 to 20 fold immediately’ (ibid, 6th April, session 3, 2004, p. EH).

There was therefore an overriding preoccupation with how change towards sustainability could or should be managed and how ‘people’ can be made to be more responsible collectively and individually. As a result the ‘social’ realm is reduced down to ‘a behavioural stimulus-response mechanism’ (Szerszynski, Lash and Wynne 1996, p. 4) which sits alongside technocratic, solution based, ‘path of least resistance’ approaches (like energy taxes) that effectively ‘standardizes the problem and the human agents it encompasses’ (Szerszynski, Lash and Wynne 1996, p. 5). During the Inquiry the main way in which this ‘standardisation’ occurred is through the use of the term ‘community’. Who the ‘community’ is and how their concerns should be considered is lost within the generalised use of the term. What we find instead is that appeals to ‘community’ and ‘community involvement’ effectively work against the interests of those who would disagree. And while the discussion paper and many of the participants involved in the Inquiry supported the need for ‘community’ involvement what is left hanging is the meaning of the term. As Hendriks has noted:
Only by recognizing how different actors understand "the public" and their role in policy development, can we better predict the kinds of challenges facing deliberative governance in a given context (Hendriks 2005, p. 16).

Community consultation throughout the inquiry was seen as a necessarily ‘good’ thing and essential to the achievement of a sustainable city, however, few submissions detailed what this would entail in practice. There was one notable exception – submission 90 from the Director of ANU’s Local Sustainability Project. In her submission and during evidence to the Inquiry Emeritus Professor Valerie Brown outlined an approach to community consultation based on a decision making cycle which begins with a vision – or question – ‘What would you like your city to be like to live in?’ (House of Representatives Standing Committee on Environment and Heritage: Public 2004-2005, 12th February, 2004, p EH 6). The decision-making framework is based on dialogue between community, specialists, and government and involves four stages: Developing Principles (what should be?), Describing People and Place (what is?), Deciding on Potential for progress (what could be?); Doing in Practice (what can be?) as much as can be done to achieve the potential; and then back to check the shared principles (House of Representatives Standing Committee on Environment and Heritage 2003 – 2004 Submission 90, p. 7). The decision making framework is, according to Brown, future orientated, context dependent and based on self determination, local meaning, local expression and local knowledge. The aim is to resolve conflict through dialogue and the development of a shared vision (House of Representatives Standing Committee on Environment and Heritage 2004-2005, 12th February 2004). It is therefore aspirational rather than prescriptive and sits in marked contrast to the dominant ways in which consultation was discussed elsewhere during the Inquiry. And while the strengths of this particular approach was acknowledged by the Committee in the final report, (see section 9.1) it was left to local government to implement. One particular shortcoming or omission in the approach as outlined in the submission and the public hearing was that the community remained undefined and therefore how to ensure ‘whole-of-community engagement’ was effectively left hanging. The assumption is that ‘community’, specialists and government can come to the table as equal partners and negotiate an agreed future vision that satisfies all. However, as Young argues while the idea and ideal of community is an understandable dream of social wholeness, symmetry and identity it has serious political consequences because it “…denies and represses social difference’ Young, 1990, p. 227). Similar sentiments have been echoed by David Harvey who, in his critique of new urbanism, argues:
Community has ever been one of the key sites of social control and surveillance, bordering on overt social repression. Well-founded communities often exclude, define themselves against others, erect all sorts of keep-out signs…” (Harvey, 1997, 3).

For Harvey appeals to ‘community’ exclude and divide because of a refusal to confront the political economy of power (Harvey, 1997, 3). Romanticized ideas about homogenous, closely-knit communities effectively ‘hide’ or hinder the possibility of thinking about current and emerging inequities in cities within the framework of sustainability or of thinking about the future differently.

The dominant focus throughout the Inquiry on the public or community understood as consumers or ‘the problem’ allowed little room for discussion of other more open-ended modes of deliberation. And because the problem had been determined in advance in the discussion paper without consultation, the main purpose of calls for consultation was simply to ‘…produce a sense of ‘ownership’ among the public’ (Straume 2005, p. 196), a point noted in one private submission which pointed out - ‘To stick to the technical questions in this inquiry is to stay to the tried and true formula, ‘develop a policy position and then validate it with an inquiry. We are talking about the future of our lifestyle- this is not a question only for the technocrats’ ((House of Representatives Standing Committee on Environment and Heritage 2003 – 2004 submission 85, p. 59). Who the public or the community is, is generalised and so what we see emerging is two contrasting stereotypes; those in the community who know how to behave ‘sustainably’, and those who don’t.

8.3 Cultural Stereotypes: Identifying the ‘Villains’

Two dominant cultural stereotypes therefore emerged during the Inquiry the suburban dweller and the consumer both of which are clearly linked along with the sustainable citizen who lives in the inner city and who knows how to behave. The identification of cultural stereotypes is of course not new in sustainability discourse. In his critique of Canada’s Green plan Eric Darier argued that the aim of the document was to create an ‘environmental citizenship’, and ‘environmental subjectivity’ that requires the ‘environmental mobilisation of the entire population’ and the ‘normalisation of every single individual’ (Darier 1996, p. 596):
The objective is to make sure that no individual escapes the environmental normalisation process …every single individual is becomes responsible for her or his environmental self-control in every social situation…For the Green plan there is no ‘private’ sphere to escape from the new environmental normalisation. The entire population and each individual has to become an environmental subject, an environmental citizen’.

In the case of the Inquiry this process of normalization and control extends right into people’s homes and how they care for their bodies. As one local government councillor put it – ‘…it is just not being embraced…throughout people’s homes. When it starts to get into people’s homes and affects their day-to-day living, you feel that you are really having an impact’ (House of Representatives Standing Committee on Environment and Heritage, 2004-2005, 6th April, 2004 p. EH37). Darier’s argument has more recently been reinforced by a number of other commentators. Wall suggests, for instance, that a focus on individual attitudes and behaviour ‘…was becoming a predominant theme in all areas of environmental discourse by the late 1980s’ (Wall 2000, p. 258) and consequently ‘…the definitions of problems themselves shifted from that of environmental degradation to that of lack of responsibility on the part of individuals for their own health’ (Wall, 2000, p. 259). This ‘narrowed the possibilities for critical public understandings’ (Wall, 2000, p. 250). Likewise in her analysis of sustainable development policy implementation in Norway Straume has noted ‘…a current, general trend of authorities to appeal to the public in a way that reduces sustainable development to a private matter for individuals and households (and) …an accompanying tendency to downplay political dialogue’ (Straume 2005, p. 196). Locating this tendency in the Agenda 21 process she argues that this process of individualisation centres on a common shared ‘villain’ that can be blamed. In the process ‘democracy’ or an understanding of individuals as citizens is lost:

Official admonitions of the need for individuals to change have an aura of common sense because they fit with much that is taken for granted in a consumer-orientated society. Environmental problems are portrayed as unwanted off-spring of this society, which threaten its promise of a good society. At the same time, however, these very problems serve to justify central institutions of the society. The continuous generation of environmental problems helps to legitimize administrative paternalism, while keeping the public passive with guilt. What remains obscured is the possibility that solving environmental problems would require a structural change that would replace the production of consumers by the development of active citizens (Straume 2005, p. 203).
Marvin and Guy (1997) voice similar concerns:

In the stress on promoting sustainable lifestyles there appears a powerful homogenising ethic and strong sense of social control. Citizens, apparently, need to be forced to adopt a particular lifestyle. Yet individual attitudes, associations and patterns of behaviour are formed in complex ways and their sense of belonging is not necessarily linked to a geographically defined community (Marvin and Guy 1997, p. 316).

The focus on suburban dwellers and consumers during the Inquiry as the ‘villains’ can of course be explained in a number of ways. Cultural stereotypes work to define both ‘good’ and ‘bad’ behavior and so suggest a them/us distinction. They also function to play down conflict by suggesting that there is a right and appropriate path to a sustainable future but this relies on more of ‘them’ becoming more like ‘us’. The use of generalized language and stereotypes masks underlying conflict because consumers, and suburban dwellers,, like communities, are inclusive concepts and are therefore apolitical, referring, as they do to everyone but at the same time no one in particular. Everyone is to blame but at the same time no one can be singled out. Affirming the need for market driven approaches the use of cultural stereotypes during the Inquiry also meant that participants could position themselves within the dominant storylines while at the same time absolving themselves of ‘blame’ or responsibility. Cultural stereotypes therefore serve to mask self or organizational interest and so as the Urban Development Institute pointed out the ‘Main policy response should be to influence consumer preference and let market follow’ (House of Representatives Standing Committee on Environment and Heritage 2003 – 2004, submission 185, p.3). Cultural stereotypes also allowed participants and, in particular, those representing industry, business and government to take on the position of either ‘victim’ or ‘hero’, rather than of ‘villain’ simply because the main villain had already been identified.

8.4 Victims, Villians and Heroes

Villains appear in storylines as characters who, because of their actions, do unreasonable, unpleasant, unnecessary or evil things to others and so in the storyline of decline they are major players. In sustainable city discourse, because of ‘their’ actions, ‘we’ face a bleak and unsustainable future. In the storyline of control, on the other hand, the role sustainability leader (hero or fixer) emerged as an important position because through heroic or morally correct actions they either have, or intend to take
control of the situation through thwarting the efforts of the villain and rescuing the victim that in most cases was the ‘environment’. Through their actions a sustainable future is assured. And so the following examines the way in which participants in the Inquiry attempted to position themselves either as victims or heroes in the storylines of decline or control. And while an array of other villains emerged, government in particular, what becomes clear is that the dominant villain remained the suburban dweller and/or the consumer.

Positioning often involves the reframing or reordering of storylines and so in this discussion I also examine how participants reordered or challenged the accepted storylines by positioning themselves or others either within those storylines or through the emergence of new storylines. As Hajer has argued, ‘...finding the appropriate storyline becomes an important form of agency’ (Hajer 1995, p. 56).

8.4.1 Victims, Villians and heroes : Industry and business

The dominant ways in which industry and business representatives positioned themselves during the Inquiry was as ‘victim’ or as ‘hero’, or sustainability leaders. Often these acts of positioning were quite explicit and were followed by demands for government to intervene in the market to ensure ‘sustainable’ consumer choice. Lack of government intervention and/or leadership in some cases and too much intervention in others it was argued contributed to either a climate of uncertainty or as a constraint on industry and business. Added to this were a lack of federal government spending on infrastructure and investment in research and development and a lack of coordination between different levels of government. And while it makes sense that industry and business would use the opportunity of the Inquiry to position themselves as sustainability leaders and make demands from government what is notable is the way in which this positioning was so clearly framed within the dominant sustainable city storylines of decline and control. Submission 9 for instance from a bus company argued that it was the federal governments refusal to increase its fuel grant for ethanol hindered the adoption of more ‘sustainable’ fuels by public transport providers, contributing to car dependence. The company argued in its submission that, ‘Ethanol is a sustainable alternative to oil supplies that will one day run dry. The community, Business and Government must work together to support the use of renewable fuels, ensuring
a sustainable future” (House of Representatives Standing Committee on Environment and Heritage 2003 – 2004 submission 9, p. 7). So, here the industry knows best and it is community, business and government who need to work together to ensure a sustainable future.

This was a common line of argument in many industry contributions particularly the energy and transport sectors reflecting Harre and Slocum’s argument that ‘In carrying on disputes it is an enormous advantage to be occupying the “moral high ground” (Harre and Slocum 2003, p. 129) where positioning opponents in disadvantageous ways can reduce the scope of their actions. So positioning involves not only positioning oneself in a discourse but also the strategic positioning of others. Who the ‘other’ is, is of great importance. The Railway technical society (House of Representatives Standing Committee on Environment and Heritage 2003 – 2004, submission 188, p. 2) for instance warned that, ‘Risks of chaos, disorder and conflict will arise unless we face up to this great challenge and make the difficult decisions essential to the future well-being of us all’. They proposed congestion pricing as a way of ensuring more people used the passenger rail network, along with, ‘Community awareness campaigns – especially those involving schoolchildren…are an essential element if public behaviour is to be influenced towards better environmental or health outcomes’ (ibid, p. 9). All of this to simply increase railway patronage and promote an industry that, in sustainable city discourse, could clearly claim the high moral ground.

So persuasive and dominant is the argument about reducing car dependence and shifting to public transport or active transport it was difficult to resist, even if it does not always necessarily accord with what often happens out there. Adherence to the dominant storyline is much more important and persuasive than appealing to the ‘facts’. This is revealed in the following exchange during the public hearings. A witness from the Sustainable transport Coalition whose concern was with peak oil and the need to increase public transport patronage was questioned about his own travel choice:

Dr Worth—….I have not been involved with this but I have decided to take the bus once a week to work. It is a 20 per cent saving in petrol.
Mr McARTHUR—Why not five times?
Dr Worth—Because I need my car to get around. I do selling in the Web area, so I need to go to client visits—and probably because I am lazy, like a lot of people.
CHAIR—The day that you have committed to the bus you know you are office bound; you focus on projects or if people want to see you, they come to you. It is part of your routine now, is it?
Dr Worth—It is. My experience is probably quite illustrative in a sense. I have a bus route that gets me into the city quicker than the car, it is cheaper, and it is a two-minute walk from my house. I never knew it was there until I went looking. This is probably the same in many cities in Australia. The public transport system is probably very useful but people are just not aware of how useful and beneficial it is (House of Representatives Standing Committee on Environment and Heritage: Public Inquiry 29th April 2004, p. EH 18).

So people do not take public transport because they are either lazy or not aware – and so once again the problem is framed as a behavioural problem due to lack of awareness or laziness. This extract is an interesting example of positioning where one of the committee members attempts to reposition the witness as a ‘consumer’. The witness response draws on the way in which that particular cultural stereotype is constructed to reposition himself again – ‘I didn’t know but now I am more aware’. So consistent with the way in which the cultural stereotype of consumer is framed, lack of awareness is to blame.

The transport sector did not, however, always agree and while it was difficult to argue against the ‘moral high ground’ adopted by the public transport sector, other transport industry representatives argued for more funding for roads using familiar ideas of decline or control. Submission 125 from the Australian Trucking Association while acknowledging that sprawling urban development would have adverse social, economic and environmental impact suggested that it was not the main issue particularly from the perspective of the freight industry. It argued that environmental impacts would occur anyway and so directed the federal government to commit to Auslink and provide additional resources to maintaining, upgrading and extending the road system so that access was not hampered. The Automobile Association of Australia (House of Representatives Standing Committee on Environment and Heritage 2003 – 2004 submission 121), in arguing for a national framework and increased funding for roads suggested that this would help address increasing congestion levels, reduce travel times and improve safety. It called for road pricing, intelligent transport systems and transparent public transport subsidies as a way of increasing the efficiencies of the transport sector. Claiming to represent six million motorists the aim of the submission was to ‘…reinforce the positive features of the motor car, the need for better roads, the importance of new technology, and the role that Governments should play if improved safety and environmental outcomes are to be achieved. If the right decisions are taken and Governments set the right parameters, the car will be seen as contributing to the sustainability of cities, not the reverse’ (ibid,
Submissions from the energy sector voiced similar arguments calling for more support from Government along with increasing compliance from the ‘community’ even though once again the demands often differed. Submission 116 from Renewable Energy Generators of Australia (REGA) argued for strengthening and extending of the commonwealth Government’s Renewable Energy Target (MRET) to support and grow the industry and submission 84 from the Centre for Photovoltaic Engineering called for mandatory energy standards along with submission 5 from the Centre for Sustainable Energy Systems, ANU. The renewable energy sector therefore had support from research institutions that linked their support for the renewable energy sector with calls for more government funding for research and development. The need to support the renewable energy sector was also reiterated in submission 117 from the Renewable and sustainable Energy Roundtable and submission 134 from the Australian Business Council on Sustainable Energy which argued that:

…minimum energy performance standards must be mandated in order to achieve acceptable levels of sustainability. Secondly, market based measures that provide investment signals for renewables and greenhouse abatement must be implemented in order to efficiently allocate resources. Finally, industry support measures need to be introduced that address impediments and support continued innovation and cost reductions *ibid*, submission 134, p. 2).

Regulation and industry support is needed because once again:

Customers are seldom aware of the adverse environmental impact of their energy consumption and supply choices. Customers are also seldom aware of the benefits from energy efficiency and renewable energy options. This needs to be rectified through improved disclosure and labelling and continually reinforced through promotional and communication material. Mandated minimum performance standards for all residential and commercial buildings (including renovations and upgrades) and a greenhouse emission abatement targets of household energy emissions limits of one tonne per person, would inevitably involve customers in energy decisions and issues. Educational outreach to the community would also be achieved by supporting the implementation of renewable energy systems for new residential property developments, solar demonstration on schools and targets for Government facilities (*ibid* submission 134, p. 9).

Government intervention is needed because while industry knows and is prepared to deliver sustainable outcomes lack of community awareness means that their efforts are thwarted. Achievement of
sustainability outcomes is therefore not the responsibility of industry but the market, or consumers, and so as an energy supplier argued:

Before a solution can be marketed the problem must be understood. There needs to be a raising of awareness of the link between electricity generation from fossil fuels and greenhouse gases. Until the community understands this link the take up of the “solution” will be low and costly to sell. This is a community problem and should be funded by the community (ibid submission 143 pp. 4-5).

However, while the renewable energy sector could claim the ‘high moral ground’ given the terms of reference and energy suppliers could also position themselves positively claiming market resistance the Electricity Supply Association of Australia (ibid submission 13) needed to frame their argument differently. The Association argued that centrally based electricity generation does provide, “…large amounts of competitively priced and efficiently produced electricity for use in urban environments whilst being subjected to stringent environmental controls” (ibid submission 13, p. 1). Using the familiar language of efficiency the Association appealed to the need for economies of scale in energy provision. They argued that there was currently an excess emphasis on renewable energy and suggested that there was more to be gained in addressing passive solar applications. Cost and consumer resistance were identified as the major impediments.

The debate around distributed versus centralised energy and water systems was of course flagged in the discussion paper and what is particularly interesting about the way in which this debate unfolded during the Inquiry was the dominance of arguments around resource use and efficiency rather than the equitable distribution of energy. One academic in fact declared in his submission in order to minimize resource use, ‘The era of the national grid is passing’ (ibid submission 74, p. 11). The Australian Water Industry Association also argued that ‘extensive urban development tends to use more water than a denser configuration, since much of urban water use is for gardening’. And while the submission suggested that equity presented a challenge it went on to add, ‘In some respects, managing differential fee structures would seem to be inequitable, but it has the potential to discourage development in inaccessible locations’ (ibid submission 112, p. 9). What was needed was for consumers, not industry, to take responsibility for the water use and capture. As the South Australian Government noted, ‘Past
practices in developing major potable water supply infrastructure has presented an appearance to many urban communities of an over-abundance of high quality water. As a result of past practices, the urban public has a poor concept of what may constitute reasonable and efficient water use, or of the importance of water for the environment’ (ibid submission 128, p. 21). And for one private participant:

The management of water in cities should start at the individual. Communities must capture and store water in their own catchment areas and not draw resources from often far-away areas at a detriment to the environment and the local population of these areas. We must understand what a catchment is….(ibid submission 12, p, 4).

A point echoed in another private submission:

It is time that we stored water from the rain where it has fallen. We should be encouraging, if not forcing the installation of water tanks across suburban areas (ibid submission 45, p. 2).

So here once again it was the suburban dweller and the consumer who is blamed for excessive water use even though household use of water in Australia amounts to only 9% of total water consumption (Department of Sustainability, Environment, Water, Population and Communities, 2006). Distributed energy and water systems rely on individual households or neighbourhoods taking responsibility for generation of their own power and capture of water at the local level rather than large scale energy generation and provision and this was also a common theme in discussions. Submission 12, for instance, claimed that, ‘I am a great believer that every household should be involved in producing some or all of their own energy needs’ (House of Representatives Standing Committee on Environment and Heritage 2003-2004, submission 12, p. 3). Submission 38 also argued for localised community (100 to 1000 homes) integrated water management (ibid submission 38 p. 1), and submission 41 from the Centre for a Sustainable Built Environment, University of New South Wales promoted decentralised supply options for energy including photovoltaics, biogases, wind and fuel cells (ibid submission 41, p. 2). Distributed energy and water systems are also conflated in an entirely unsubstantiated way with increased individual well-being and ‘community’. As one consultant noted, ‘There appears to be a clear relationship between control over one’s immediate environment and a sense of well being and I would therefore suggest that at an individual level there would be social benefits while at the neighbourhood level it would increase the sense of community’ (ibid, submission 79, p. 7).
The focus on individual and household resource consumption as the site of overuse and waste meant that the role of the building industry came into the spotlight but consistently representatives argued it was not the responsibility of industry but of consumers to change their preferences. As the Master Builders Association argued, ‘…it must be recognized that the successful implementation of sustainable environmental outcomes in the first instance starts with the client taking the responsibility for such outcomes. If the client and/or community are not prepared to pay, then it is not the responsibility of the builder to pay for such outcomes’ (ibid submission 129, p.4). Endorsing this market led approach, the focus in many of the submissions and during the public Inquiry was on how to regulate the building industry so that the ‘right’ consumer choices could be made. And what becomes clear is that there are a number of tools available to regulate the market along with a host of technologies to reduce resource consumption and waste. Most of these were focussed at the level of the household or the residential rather than the commercial sector – from water tanks to capture storm water, retrofitting houses for energy efficiency, demand management, efficiency labelling, solar hot water, solar panels, along with fiscal approaches like mandatory disclosure of energy efficiency at point of sale, location efficient mortgages, and so it was not the case that the techniques did not exist but rather than there was poor consumer uptake. As the planning Institute of Australia pointed out, ‘Housing and building markets tend to be influenced more by visible ‘wow’ factor features, while many eco-efficiency measures are not very visible’ (ibid, submission 168, p. 69).

8.4.2 Government as heroes, victims and villains

Along with Industry and business, local Government representatives were keen to position themselves as sustainability leaders and used the Inquiry as a forum to promote their achievements as sustainability leaders. Part of the reason for this appeared to be to support calls for funding and recognition of the role of local government but in order to do this they needed to position themselves strategically within the storyline.20 Clearly referencing agenda 21 promotion of local government as the level of government in

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20 These discussions reference a broader discussion about the powers and responsibilities of different levels of government in
closest to the people, a number of local government submissions dismissed the discussion paper’s visionary objectives as being stale (ibid, submission 47, p. 1), simplistic (ibid submission 60, p. 19), not new (ibid submission 61, p. 2) or that they ‘create the impression that the topic “sustainable cities” is virgin ground’ (ibid, submission 101) and in doing so the discussion paper is considered to be ‘dismissive of the substantial efforts and achievements that have been made to date’ (ibid submission 101, p. 4). Here local government ‘knows best’ and so in order to move towards sustainable cities their role and their achievements need to be recognised and supported. This point was reiterated by the South East Queensland Regional Organisation of Councils which called for, ‘strong and sustained support from both State and Commonwealth Governments’ (ibid submission 60, p. 2). The organisation called for a national vision and set of objectives for future city settlements and complained about the lack of power of Local Government to influence ‘unsustainable actions by industry, government and the community (ibid submission 60, p. 2). Current approaches to governing for sustainability were also described as ‘fragmented, piecemeal and confused’ because of the different levels of government and government departments involved in implementation (ibid submission 20, p. 1). And so a strong coordinated federal approach was needed, a point reiterated by the Northern Sub-Regional Organisation of Councils, Queensland (ibid Submission 21). These demands were often based on a frustration with lack of implementation and of ‘positive action’ (ibid submission 61, p. 2,). Implementation and action however involves a decision about what constitutes a sustainable city to have already been made and here Local Government as sustainability leaders were in the best position to define and decide what needed to be done.

Other Local Government submissions argued that it was not in fact the role of the Commonwealth Government to be involved in discussions about sustainable cities. As an example the Local Government Association of Queensland argued that the discussion paper was too specific. It suggested that “The Commonwealth Governments focus should be on issues of national or inter state significance and then facilitating policy and program approaches at the nation and state levels’ (ibid submission 83, Australia. Local government has a limited constitutional position in Australia, being organised under state or territory legislation. Local government in Australia provides a relatively narrow range of services. However, as Bennet 2008 points out ‘There is an argument suggesting that as the Commonwealth becomes stronger, so the right of people to govern themselves in local matters should be given constitutional recognition – as it is in the state constitutions (Bennett 2008, p. 137).
‘Appropriate’ Governance models and relationships needed to be developed ‘which draw on the experience, knowledge and capacity of Local Government (ibid submission 83, p. 7). This criticism was supported by the Toowoomba City Council in its submission:

The Federal Government’s interest should be related to issues of national significance, rather than on specific issues as outlined in the discussion paper. These specific issues are best left to Local Governments, community groups and individuals. The Federal Government should focus on facilitating policy programs and legislation at the state and national level. Local Government, through regional organizations and associations, need a process of providing positive feedback to the Federal Government on what is the most productive form of assistance (ibid, submission 155, p.1)

For Toowoomba City Council the question for the Committee was how to support and adequately resource Local Government, industry, businesses community and individuals rather than driving the agenda.

The position taken by many Local Government Authorities can of course be justified within the context of the broader, international sustainability discourse. With its overriding focus on implementation at the local government level Agenda 21 provided local government authorities globally with a mandate to implement sustainable development programs and policies based on consultation and consensus. Chapter 28, paragraph 3 stated:

> Each local authority should enter into a dialogue with its citizens, local organizations and private enterprises and adopt “a local Agenda 21”. Through consultation and consensus-building, local authorities would learn from citizens and from local, civic, community, business and industrial organizations and acquire the information needed for formulating the best strategies. The process of consultation would increase household awareness of sustainable development issues. Local authority programmes, policies, laws and regulations to achieve Agenda 21 objectives would be assessed and modified, based on local programmes adopted. Strategies could also be used in supporting proposals for local, national, regional and international funding (United Nations Department of Economic and Social Affairs 1992).

Providing the authority and the resources to local government for implementation was therefore a common concern expressed in many local government submission because ‘Local Government is at the coalface of implementation (House of Representatives Standing Committee on Environment and Heritage Submission 20, p. 1). This position was also reiterated by the International Council for Local Environmental Initiatives (ICLEI) which argued that the state and federal governments ‘play a
fundamental role in supporting local government’ (ibid submission 72, p. 2) because it was at local
government level that Agenda 21 needed to be implemented. Concerns about the appropriate role for the
Commonwealth Government, along with the lack of acknowledgment for efforts already in place, were
reiterated by the Western Australian Government in their submission to the Inquiry. The submission
criticised the Discussion paper for its generality:

The approach taken in the Discussion paper is one based on traditional ecological principles that
emphasise the protection of the environment, heritage and green spaces, and the reduction in
energy use and waste. One of the keys to sustainable cities is to develop sustainable urban
structuring principles, as these are the building blocks of good urban form. The paper shows
limited understanding of this, nor of best practice in the area (ibid submission 173, p. 1).

After addressing the visionary objectives, the submission outlined and promoted the Western Australian
Government’s approach to sustainability, before detailing in attachment 3 ‘HOW THE
COMMONWEALTH GOVERNMENT CAN HELP STATES AND TERRITORIES ACHIEVE
SUSTAINABLE CITIES’, a five page summary of directives to the Commonwealth Government on what
was required.

Other submissions argued for increased involvement by the Commonwealth Government through the
taxation system, development of a population policy, support for research and development and greater
use of provisions of the Environment Protection and Biodiversity Conservation Act (see for instance
submission 55 from an NGO) as a way of providing the scaffolding to support rather than lead other
levels of government, community or industry.

These concerns were reiterated at two round table discussions with Local Government during the public
hearings where the call was for leadership from the Commonwealth Government and support for Local
Government. But this support needed to be based on a partnership between all levels of government. As
was pointed out in the Brisbane hearing it ‘…would be counterproductive if the Commonwealth sought to
develop a response that sought to impose some regime, some framework that did not recognize state and
local involvement’ (House of Representatives Standing Committee on Environment and Heritage 2004-
2005 6th April, 2004,28). The dominant focus in these discussions was, however, behavioural change.
As one local Government representative expressed it, ‘…we need really strong leadership and the
framework so that people know why their behavioural change is important’ (ibid 16th March 2004, p. EH99). Or as expressed by a Local Councillor:

I think it comes down to the community being educated purchasers—look at the buy Australian program, the litter program and the sunscreen program. If you educate the community and they are educated purchasers, I think that will have a huge impact on the industry. It is one way of, if you like, sticking your finger up their noses and pulling them over the line (ibid 6th April 2004, p. . EH 29).

An observation once again that clearly places the blame and the responsibility firmly on the shoulders of consumers, not industry, business or government.

8.5 Conclusion

In this chapter I have examined participation in the Inquiry and I have argued that simply categorizing different groups and then identifying groups that were not included tells us little about how sustainable cities were spoken and written about. Nor does it necessarily lead to an understanding of the power effects of the discourse. The chapter therefore considered the ‘who’, not as fixed categories, or as roles, but as positions in storylines. As I have demonstrated two dominant cultural stereotypes emerged during the Inquiry - the suburban dweller and the consumer both of which are clearly linked along with the sustainable citizen who lives in the inner city and who knows how to behave. Cultural stereotypes define both ‘good’ and ‘bad’ behaviour based on a them/us distinction. They function to play down conflict by suggesting that there is a right and appropriate path to a sustainable future but this relies on more of ‘them’ becoming more like ‘us’. The use of generalized language and stereotypes I have argued, masks underlying conflict because consumers, and suburban dwellers are inclusive apolitical concepts referring to everyone but at the same time no one in particular. This leads to a diffusion of responsibility so that ‘everyone’ and at the same time no one is to blame. This insight has important implications not only for the outcome of the Inquiry but for decision making about questions of sustainability more generally. These implications are explored in the next chapter that begins with an examination of the outcomes of the Inquiry before moving to a discussion of the broader implications of the case study.
The Sustainable City: Framing the Future

9.0 Introduction

As the case study has demonstrated one of the major focuses of discussions during the Australian Government’s House of Representatives Standing Committee on Environment and Heritage’s Inquiry into Sustainable Cities 2025 was that responsibility for the unsustainability of Australian cities and the implementation of ‘sustainability’ measures was placed firmly in the hands of ‘ordinary’ everyday citizens as consumers effectively meant is that the Inquiry simply reiterated and in most cases endorsed the already well rehearsed storylines about what constitutes a sustainable city offering little advice or opportunities for change and transformation. The ‘problem’ and the ‘solution’ had already been predefined.

This thesis asked from the outset how is the idea(l) of the sustainable city framed in discourse, how is it contested, what are the basic terms and conditions upon which agreement or consensus are reached, which understandings come to dominate and which are marginalized? What alternative storylines are available and finally how is transformation or change possible? The case study has explored and responded to the first five of these questions. This chapter begins with a discussion of the outcomes of the Inquiry – the final report before turning to the final question – how is transformation and change possible?

9.1 The Outcome: the Final report

The final report, tabled in parliament in 12th September, 2005 contains 32 recommendations which focus on Governance and Policy Frameworks, Planning and Settlement Patterns, Transport, Water, Building Design and Management, Energy and finally Research and Feedback. The report did not claim

21 The career of the final report and recommendations is an interesting one. Tabled on 12th September, 2005, on the 13th October, 2nd and 3rd November the government was condemned in Parliament for not acknowledging the report, during debate on the Energy Efficiency Opportunities Bill 2005. The report was re-tabled on 3rd November 2005 and again on the 1st December when it was described as a landmark report in showing the way towards better planning (Commonwealth of Australia 2005b, p. 132). It was referred to again on the 9th February 9th May and 22nd, 2006. On the 16th June, 2006 and the 4th September it was again noted that there had still been no response from the government. By this stage the House of Representatives had begun a new inquiry into a sustainability charter in response to the recommendations of the sustainable cities Inquiry and the Interim report was tabled on the 4th September. This Inquiry began on the 16th February 2006. To date there has been no response from the government to the sustainable cities report.
to be comprehensive but represented, ‘… many of the thematic issues that emerged through the inquiry and sets the direction for governments at all levels’ (House of Representatives Standing Committee on Environment and Heritage 2005, p. 4). In presenting the report to the House of Representatives two of the Committee Members drew attention to the dire situation Australian cities currently face. As one Committee member stated in Parliament:

The report is very important because I think Australians across the length and breadth of the country know that the health of our cities is in serious decline. They know there is something wrong when they are faced with water shortages, power blackouts, dying rivers, lack of public transport, transport congestion and crumbling infrastructure (Commonwealth of Australia 2005a, p. 5).

The outlook for Australian cities, according to this Committee Member was ‘bleak’ because of the ‘effects of unsustainable practices of the past’ (ibid p. 5). What was missing, according to another Committee member is ‘ concerted and coordinated action at the national level’ (ibid p. 4).

The overarching focus of the final report was on establishing principles, targets and mechanisms towards sustainability with an emphasis on performance indicators, monitoring and the provision of accessible information, ‘…so that the Australian public can make informed judgements about the issues addressed in the report’ (ibid p. 4). The report begins with a ‘scorecard’ or ‘snapshot’ of the urban environment and an overview of the ‘liveability’ of Australian cities, establishing that the figures presented ‘…are an indictment of current unsustainable practices (ibid p. 10). And even though the report defined sustainability as a ‘dynamic concept implying a continual process of improvement’ (ibid p. 9), referring to the need for ‘a vision of a sustainable city’ and ‘a pathway to sustainability’ (ibid p. 9) this was followed by a clear articulation of the story of decline where the expansion of cities as a result of population growth was leading to:

More urban travel, greater freight costs, less bushland, higher living costs, more social isolation, reduced air quality, greater water and energy consumption, decreased physical health, and increased levels of household and commercial waste (ibid p. 11).

In a continuation of the story of decline the report notes three main health issues that are impacted by the urban environment – obesity, cardiovascular disease and diabetes – which are attributed to physical
inactivity. The economic costs of unhealthy lifestyles were considered unsustainable not only because of increased costs but also because they led to poverty (ibid p.16).

Chapter 3 is concerned with questions of governance and considers the need for a ‘new’, ‘fresh’ overarching policy framework and a national urban agenda that facilitates rather than prescribes a path towards sustainability. The outcome would be a Sustainability Charter and National Targets across a number of areas, including water, transport, energy, building design and planning, based on triple bottom line targets, capable of measurement and reporting. Implementation would be based on a series of incentives to accelerate progress, rather than being based on direct intervention (ibid p. 29). What this means in practice according to the report, which drew on the Planning Institute of Australia’s 2004 National Policy Statement is a subsidiarity model, where ‘policy development and implementation is undertaken by the lowest possible level of governance – the level closest to the local community’ (ibid p. 28). Policy proposals would need to be evaluated against targets with the Sustainability Charter administered by an Australian Sustainability Commission. Funding, along with incentive payments to State and Local government would be tied to measurable outcomes as a way of ensuring ‘co-operation’ (ibid p. 35). The focus on implementation at the ‘local’ level, or the level of government ‘closest to the people’, is justified because of the need for involvement and action by all Australians. As the Report states:

A vision for sustainability must engage Australians and have meaning – it must close the gap between policy makers and the lived reality of Australians who will, ultimately, be the practitioners of sustainability principles (ibid p. 153).

Local government’s mandate to ensure the transition to sustainable cities was therefore reaffirmed through consultation with their local communities. Consultation was however, overriding conflated with ‘information’ and awareness raising so that the ‘community’ could and should make informed decisions. The report is, therefore, a clear expression of what Marvin and Guy (1997) refer to as the ‘new localism’ which they argue is based more on creating ‘myths’ rather than ‘sustainability’ where the concept of ‘...a myth is used to represent narratives that concretely frame the way in which environmental problems are conventionally viewed (Marvin and Guy 1997 P. 312). In the ‘new localism’
a discourse that has become so prevalent, ‘as to represent an official orthodoxy’ (Marvin and Guy 1997, p. 317), the overriding focus on the locality and local government as the site for implementation, with undue emphasis on the role of individual behavioural change and physically changing the form of cities as a way of delivering sustainability. As a result:

Conceptually the locale is seen as a socio-spatial container in which the sum of institutional, social and physical relations necessary to achieve a more sustainable future can be found. The local becomes a "black box" disconnected from the global, international and national contexts within which localities are framed (ibid p. 312).

And accompanying this focus on the locality is the development of 'decision-support' techniques that provide information about the environment. These include environment reports, quantitative indicators and internal audits of environmental performance. In the ‘new localist’ discourse:

Individuals also have a key role…—they must be tamed and encouraged to adopt a new form of environmental citizenship. Dramatic social change will be facilitated by better information leading to some form of self-realisation and the adoption of more sustainable lifestyles. At the same time the new localism has taken a very physicalist view of the city, attempting to attain a sustainability by technically redesigning the city. New efforts have been made to develop a more 'scientific' understanding of the city through efforts to quantify environmental change and develop more rational methods of decision-making. In this way the new localism strives to create both the good citizen and ideal city from within, using local government as the main instrument of change (Marvin and Guy 1997, p. 317).

Planning and Settlement patterns are discussed in chapter 4 and interestingly and significantly this chapter also contains a brief discussion of ‘community consultation’. On the issue of sprawl versus containment committee restated the arguments for and against density or sprawl as follows:

The committee notes that the term ‘sprawl’ is usually applied in a pejorative sense and implies an unplanned and chaotic spread of homogenous housing, usually in fringe areas bereft of services or in gated-type communities. Higher density housing is often posed as the antidote to urban sprawl and, in some instances, vice versa – Greenfield urban expansion is considered the antidote to lifeless inner city apartment complexes (House of Representatives Standing Committee on Environment and Heritage 2005, p. 46).

Before following with:
The committee considers both views to be emotive reactions that do not allow for the possibility of planned developments – either in city expansion at the edges or through the densification of infill city areas. The committee is also of the view that there are many examples to be seen of both ‘worst practice’ sprawl and densification. However, these examples of worst practice should not be taken as automatic condemnation of any city expansion or densification. As our city populations increase, we will need to both expand the city fringe and to increase housing densities. The issue is to what degree this takes place and how these developments are managed to create sustaining communities and liveable cities (ibid p. 46).

And while briefly noting the question of housing affordability, the committee went on to add that housing demand was largely consumer driven and based on preference - ‘In the matter of home ownership, the low density suburbia model remains dominant and most attractive’ (ibid p. 42) – a point the committee noted demonstrated a contradiction, ‘between community support for sustainable living principles and individual preferences for settlement and housing options’ (ibid p. 42). And so while not taking a position on the sprawl versus containment debate, the sub text clearly asserts a particular perspective on what constitutes ‘sustainable living’. Similar contradictions appear in the discussion on ‘community consultation’.

Rather than being drawn on taking a position on sprawl versus containment the report argued instead for ‘the need for local consultations, appropriate approval processes, and an approach to planning which has a holistic regard for building vital communities’ (ibid, p. 48). The Committee noted polarization and scepticism about consultation processes during the inquiry and drew in particular on a submission and evidence from Professor Valerie Brown who detailed ‘a comprehensive consultation and negotiation processes in regard to community planning and decision making’ (ibid, p. 48). Facilitated decision-making models were in the opinion of the Committee inclusive and based on community development principles. As a result the report stated:

The committee strongly encourages local government to consider these innovative types of approaches and to view consultation not as a process to seek agreement to proposed changes, but as an opportunity to negotiate towards amenable outcomes, while engendering community spirit and support (p. 56).

Despite these acknowledgments of the need for community consultation no recommendations appear on the topic beyond including representatives of the CSIRO and the Federal Department of Environment and
Heritage on the Development Assessment Forum. Instead consultation is conflated with information or the creation of a national database ‘where Australians are able to track actual sustainability outcomes against initial forecasts’ (ibid p. 58). So it is not the meaning or the measurement of ‘sustainability’ that is open for negotiation but rather engendering community support.

Using as an example the Swedish model based on a one page chart or snapshot report card with measurements of 15 environmental targets denoted by happy, sad or neutral symbols which allows people to ‘gauge, at a glance, achievements and progress’\(^{22}\) (ibid p. 154). the committee noted that:

> if we expect a change in behaviour and consumption patterns, we need a set of objectives, targets and a reporting system that closes the information loop and reports back in a way that makes sense to all (ibid p. 154).

In chapters on transport (Chapter 5), Water (Chapter 6), Building Design and Management (Chapter 7) and energy (chapter 8) the overriding focus is on identifying market based mechanisms including rating schemes, labeling, mandatory disclosure schemes and public education campaigns to reduce resource consumption, rather than consider questions around the equitable distribution of resources. Only two recommendations make some reference to issues of social equity. Recommendation 7 calls for the provision of funding specifically for sustainable public transport infrastructure and developments on the outer fringes of our cities as a way of reducing automobile dependence (ibid, p. xviii) and 32 recommends that the Australian Government investigate opportunities to establish a Sustainable Cities network across Australia and Asia and extend its regional and international commitment to urban sustainability through avenues such as:

- Technology and research exchange
- Pilot demonstration projects, particularly in the area of water and waste treatment
- Increased aid for social development in urban areas, and

\(^{22}\) Similar to the British Indicators in your pocket see Chapter 2.
Absent, in the final report was any acknowledgment of social or cultural diversity or of existing inequalities in and between cities. The Australian population was effectively homogenised as the focus became one of changing consumptive behaviour and building ‘communities’ at the local government level. This is despite evidence presented during the Inquiry regarding inequitable access to services as a result of locational disadvantage this was routinely put down to poor consumer choice that could be addressed through providing the ‘right’ information.

One could argue that the dominant storyline of sprawl versus containment was effectively disrupted during the inquiry using a range of discursive tactics. Participants either reversed the ordering of the storylines to argue against compact city form as a sustainable outcome, offered alternative evidence to suggest flaws in the logic of the storyline or by simply challenging the language used. However while the Committee in its final report did not take a position on the sprawl versus containment debate, pointing out the ‘emotive’ nature of the language used, the sub text clearly asserted a particular perspective on what constitutes ‘sustainable living’, placing the responsibility firmly in the hands of ordinary citizens to make informed decisions. Sprawl became a matter of individual choice. So rather than reframe the ‘problem’ of unsustainability and cities – to consider alternative questions around equity or affordable housing, or to consider sustainable of what and for whom – the Committee opted instead for a path of least resistance approach based on establishing principles, targets and mechanisms towards sustainability with an emphasis on performance indicators, monitoring and the provision of accessible information, ‘…so that the Australian public can make informed judgements about the issues addressed in the report’ (ibid p. 4). Non-involvement therefore becomes a matter of concern and the solution - education to raise awareness. Or put another way, if people aren’t involved then they ought to be. They need to agree.

This focus on consumption and poor consumer choice as the dominant cause of ‘unsustainability’ throughout the Inquiry and in the final report endorsed a market driven approach to sustainability. The end result is not governance, with all of its connotations of collaboration, but governmentality, understood in the Foucauldian sense of guiding and controlling the behaviour of populations through the production and distribution of ‘knowledge’. Once given the ‘right’ kind of knowledge individual citizens are expected to effectively and efficiently govern themselves. As Marvin and Guy argue:
In the stress on promoting sustainable lifestyles there appears a powerful homogenising ethic and strong sense of social control. Citizens, apparently, need to be forced to adopt a particular lifestyle. Yet individual attitudes, associations and patterns of behaviour are formed in complex ways and their sense of belonging is not necessarily linked to a geographically defined community. (Marvin and Guy 1997 p. 316).

This focus on individuals as consumers effectively shifted attention away from industry, business and government, who, because the ‘villain’ had already been identified, could position them-selves as heroes or victims. This reflects what Beck has labelled ‘organised non-liability’ where the burden of proof for environmental hazards or damage is not borne by the perpetuators but is instead projected outwards. ‘Organised non-liability’:

...renders all resistance idle, ultimately turning that which controls the production of hazards – law, science, administration, policy – into its accomplices. The rules of attrition according to which the hazards produced within the system are dealt with – i.e. calculated, justified, brought to public attention or simply rendered anonymous and palmed off on individuals (causality, guilt, liability) – stem from a different century (Beck 1995, p. 160).

Defining the unsustainability of cities in terms of consumption and sprawl also meant that the impacts of ‘unsustainable’ or ‘sustainable’ practices for that matter on the lives of ordinary citizens rarely entered into discussions. For instance, even though individuals living in the suburbs or on the urban rural fringe were identified during the Inquiry as ‘locationally disadvantaged’ this was simply put down to poor and unsustainable decision making which could be addressed through providing the ‘right’ information. However, ultimately sustainability is also about the distribution of resources which opens up the possibility of reframing discussions in terms of distributional equity – who gets what and in what quantities – and how can resources be redirected to address disadvantage. What became apparent during the Inquiry is that considerations of equity were dominated by views based not on need, or right but on desert. As Dobson reminds us:

For many people – liberals especially – a socially just situation is one in which we expect to find significantly inequalities in the distribution of society’s ‘goods and bads’, so long as these unequal distributions are fairly arrived at – for example, through some people ‘deserving’ to have more goods than others (Dobson 2003, p. 84).
This is an enduring feature of environmental discourse in particular and perhaps one of the pitfalls of claims to inclusion and consensus. Claims to inclusion and consensus effectively divert attention away from existing and emerging inequities within cities and limit what can be spoken about.

Part of the reason for this outcome lays in the environmental policy making process itself which remains trapped in the need to define a problem and then devise a ‘solution’. This means that policy making, or discussions around policy are seen to be, by necessity, reductive. And when confronted with a difficult and contested concept like sustainability which is all encompassing the impulse and the tendency is to attempt to define or fix its meanings once and for all so that the task of implementation can proceed. Appeals to a sense of urgency, ‘crisis’ or being ‘out of time’ adds weight to these calls for implementation. However, if the problem has already been defined prior to consultation as was the case here, then it leaves little room for individuals to object to or challenge dominant understandings. As Straume has observed in her study of sustainable development in Norway problem definition, determined in advance without consultation, means that the purpose of consultation is to ‘…produce a sense of ‘ownership’ among the public’ (Straume 2005, p. 196). This has a significant depoliticizing effect that simply serves to preserve the status quo and disempower citizens:

The private, isolated individual-stripped of citizen-capacity and political community-is not only made responsible for all the wrongs of the system, but is also blamed for not changing it. For administrative officials, research and strategy measures focusing on people’s attitudes constitute ways to distribute guilt, exercise control, avoid blame, and preserve the status quo. The power of this system is enhanced through discursive and managerial techniques that disempower political subjects. The result for the demos is guilt and a loss of creative power (Straume 2005, p. 203).

Images of emergencies, or of crisis and catastrophe serve to inform a managerial perspective that suggests that things can be brought under control with intervention as Calhoun (2004) so clearly demonstrates.

If, as occurred in the Inquiry, the problem of sustainable cities is pre-defined in terms of sprawl/not sprawl, then this act of definition alone effectively disqualifies many voices from the outset. Who
amongst the citizenry has the authority and/or the knowledge to speak either for or against containment strategies? And why should it matter? But even further than this because the problem has already been predefined so has the solution which closed down the possibility for opening the debate up to multiple and more conflicting perspectives. As Hajer argued, rather than ask ‘how to’, deliberative decision making can ‘…never be based on pre-conceived problem definitions. Indeed, reflexive practices should in large part be orientated towards constructing the social problem’ (Hajer 1995, p. 287). This shifts attention away from the goal, how to achieve a sustainable city – towards the process. And so for Hajer ‘…the challenge is to find a process that allows for social change to take place democratically and in a way that stimulates the creation of an – at least partially – shared vision of the future’ (Hajer 1995, p. 280). Hajer goes so far as to suggest that the way to resist or extend dominant storylines is to develop processes to ensure more citizen involvement. He proposes a ‘bottom up’, reflexive approach to environmental decision making which moves away from a reliance on policy makers or info-brokers (Hajer, 1995, p. 285), expert knowledge and linear policy making process to one where ordinary citizens are involved in what he terms a societal inquiry which is open to different points of view, specific knowledges and where ‘…people can recognize a role for themselves and can actively take part’ (Hajer, 1995, p. 291).

This requires more than simply calling for more citizen participation but a reframing the problem in the first place, because as Arnstein pointed out in 1969:

there is a critical difference between going through the empty ritual of participation and having the real power needed to affect the outcome of the process…participation without redistribution of power is an empty and frustrating process for the powerless. It allows the powerholders to claim that all sides were considered, but makes it possible for only some of those sides to benefit. It maintains the status quo (Arnstein 1969, p. 2).

The need for ‘community consultation’ throughout the inquiry was seen as a necessarily ‘good’ thing and essential to the achievement of a sustainable city, however, few submissions detailed what this would entail in practice. The dominant focus throughout the Inquiry on the public or community understood as consumers or ‘the problem’ allowing little room for discussion of other more open-ended modes of deliberation. In her submission and during evidence to the Inquiry Emeritus Professor Valerie Brown outlined an approach to community consultation based on a decision making cycle based on dialogue.
between community, specialists, and government involving four stages: Developing Principles (what should be?), Describing People and Place (what is?), Deciding on Potential for progress (what could be?); Doing in Practice (what can be?) as much as can be done to achieve the potential; and then back to check the shared principles (House of Representatives Standing Committee on Environment and Heritage 2003 – 2004 Submission 90, p. 7). And while the strength of this particular approach was acknowledged by the Committee in the final report, it was, as discussed earlier, left to local government to implement. In place of any serious discussion of what community consultation entailed what emerged instead during the Inquiry were two contrasting cultural stereotypes. These cultural stereotypes served to not only homogenize but also generalise. And because ‘we are in all in this together’ – the ‘we’ becomes those who are prepared to take sustainability ‘seriously’, who use the language and the rhetoric, and who ‘know’ the dominant storyline, while the ‘they’ are those who don’t. This sets up an exclusionary politics that effectively justifies a whole range of decision that in any other context would read as unjust.

And so as Marvin and Guy point out

we urgently need a more critically ambitious debate based on a more theoretically informed and empirical view of the social, political, commercial and technological shaping of local environments. In building local environment policy we need to draw in new participants and ask new questions about what a policy might achieve and for whom (Marvin and Guy 1997, p. 317).

Such an approach needs to move beyond shallow claims to consensus and a ‘common future’ towards an understanding of sustainability as a political concept. ‘We’ need to ask who are ‘we’ rather than seek or assume consensus from the outset. As Beck so clearly puts it:

Ecological devastation and social divisions cannot in the end be wished away be (sic) gesture politics, the centralization of data or the creation of new government bodies. They can only be overcome by rules of decision-making that break up and democratize the concentration of power on questions of definition, because the problem of attribution can only be solved in this way (Beck 1995, p. 11).
9.2 The Problem with Consensus

As Chantelle Mouffe has argued convincingly appeals to consensus are most often based on a denial of the political. Instead:

What is happening is that nowadays the political is played out in the moral register. In other words, it consists in the we/they discrimination, but the we/they, instead of being defined with political categories, is now established in moral terms. In place of a struggle between ‘right and left’ we are faced with a struggle between ‘right and wrong’ (Mouffe 2005, p. 5).

For Mouffe appeals to consensus are not only politically dangerous, they are also conceptually mistaken. She argues that while there is ‘much talk’ of dialogue and deliberation the question that needs to be considered is – ‘what is the meaning of such words in the political field, if no real choice is at hand and if the participants in the discussion are not able to decide between clearly differentiated alternatives?’ (Mouffe 2005, p. 3). As we have seen in sustainable city discourse the choice between a future of decline or a future of control, or a sustainable or unsustainable future leaves no choice at all. And this lack of choice leaves little room for dialogue and deliberation beyond the constraints of the discourse. Appeals to ‘consensus’ writes out the possibility of framing sustainability as a political question, based as they are on an understanding that conflict can be overcome; that through dialogue and exchange agreement can be reached. But as Mouffe points out every consensus is based on acts of exclusion (Mouffe 2005, p. 11). Mouffe bemoans the ‘…current inability to envisage the problems facing our societies in a political way’ arguing that ‘political questions are not mere technical issues to be solved by experts’ (Mouffe 2005, p. 10). As was evident in the Inquiry discussions about sustainable cities in Australia revolve around a we/them dichotomy which is clearly played out in the moral register; where the ‘we’ can articulate and distinguish between ‘good’ and ‘bad’ behaviour and a ‘them’ who clearly need to be educated to become more aware.

And so it is not necessarily the inclusion of multiple voices that will lead to more sustainable outcomes, or overcoming or resolving conflicting positions through discovering a metanarrative but rather careful attention to the stories we tell ourselves and others and which frame our understandings of the ‘world’ and of ‘reality’ in the first place. As Carolyn Merchant so clearly put it:
…we live out lives as characters in the grand narrative into which we have been socialised as children and conform as adults. That narrative is the story told to itself by the dominant society of which we are part. We internalize narrative as ideology. Ideology is a story told by people in power. Once we identify ideology as a story—powerful and compelling, but still only a story—we realise that by rewriting the story, we can begin to challenge the structures of power. We recognise that all stories can and should be challenged (Merchant 1996, p. 157).

These stories and the possibilities they imagine may not be linear, overarching metanarratives that focus on recovery after decline. Their scope could be situated and contextualised rather than global and universalising. And the characters could and should be different too. But above all else they will be spoken and written about in a way that acknowledges rather than negates conflicting perspectives, values, beliefs and life situations rather than simply attributing and/or deflecting blame, because maybe the issues and conflicts cannot be resolved through consensual means?

9.3 Conclusion

As is clear in above discussion the outcome from the Inquiry into sustainable cities were therefore limited. Responsibility for the unsustainability of Australian cities and the implementation of ‘sustainability’ measures was placed firmly in the hands of ‘ordinary’ everyday citizens as consumers. Consultation was overriding conflated with ‘information’ and awareness raising not only during the inquiry but also in the final report with its emphasis on national targets and the development of market mechanisms so that the ‘community’ could and should make informed decisions. Identification of the villains as ordinary consumers effectively exonerated business, industry and government from responsibility other than to develop techniques to change consumer behavior. Without the involvement of ‘all’ Australians the story of decline would continue and so individual self-control became the focus of the story of control. This meant that questions around the equitable distribution of resources or of locational disadvantage were deflected or overlooked. Sustainability became a matter of individual choice instead. Throughout the inquiry adherence to the dominant storylines of decline and control also effectively constrained what could be spoken and written about and perhaps more importantly what ‘issues’ could be included and whose voices were heard. And this ready acceptance was clearly based on a range of assumptions embedded in those storylines adopted from elsewhere rather than a serious
consideration of the issues involved, the context, or of broader evidence. Sustainability and the Sustainable city effectively became a matter for expert definition and consumer compliance.
Conclusion

10.0 Introduction

This thesis was concerned with the way in which idea(l)s about the sustainable city are framed in discourse and explored this through an historical analysis of the emergence of sustainability and sustainable development before turning to a discussion of sustainable city discourse. This is followed by a single case study of the Australian Federal Governments inquiry into sustainable cities 2008-2009. The thesis was, as I indicated in the introduction, one attempt to shake the shaky ground upon which many of the ideas and the assumptions about sustainability and the sustainable city rest (Sandilands 1996). The research questions guiding this research were:

- how is the idea(l) of sustainability and the sustainable city framed in discourse?
- how is it contested?
- what are the basic terms and conditions upon which agreement or consensus are reached?
- which understandings come to dominate and which are marginalized?
- what storylines and subject positions are available to participants in sustainable city discourse?
- And finally how is transformation or change possible?

The following discussion reviews each of the research questions in turn and considers them in relationship to research outcomes. This is followed by a discussion of the implications of the research and the contribution that it makes in the field of urban and sustainability policy. Given the research approach adopted there are a number of limitations in terms of the conclusions that can be drawn from a single case study, however, I argue that the strength of the thesis lies in the methodology and methods developed for analyzing sustainability talk and text rather than in broad generalizations that can be drawn
about the future of sustainable cities. The conclusion ends with a brief discussion of not only the contribution of the research approach but also considers its applicability in terms of future research.

10.1 How is the idea(l) of sustainability and the sustainable city framed in discourse?

This research question related quite explicitly not only to the content of the thesis but also to the research methodology as outlined in chapter 3 and as employed in chapter 5, 6, 7, 8 and 9. In chapter 2, I identify three key approaches to research in the broad field of sustainability. The first approach is concerned with definitions of sustainability, the second with implementation and the third approach is concerned with sustainability as a discourse. In the chapter I establish a rationale for using this final approach in this thesis. Understood as discourse shifts attention away from what sustainability could or should mean in practice toward a consideration of the effects of ways of talking and writing about sustainability and the sustainable city.

What the research revealed is the binary nature of sustainable city discourse and how this predefines and limits what can be spoken and written about in environmental discourse and policy discussions about future sustainable cities. The term sprawl, I argue, has become synonymous with ‘unsustainability’. Sprawl is almost always portrayed as both consumptive and destructive and sits in contrast to its alternative the compact, sustainable city that is equitable, healthy, environmental friendly, lively and vibrant. And so the overriding focus in sustainable city discourse is on changing the form of cities from sprawling to compact as a way of delivering ‘sustainable’ outcomes.

10.2 How is it contested?

This question shifts attention away from establishing what ‘is’ the ideal of a sustainable city or what it should be to consider who is contesting what and why? This allowed for consideration of alternative ways of speaking and writing about sustainability and the sustainable city rather than focusing on areas of agreement.
During the House of Representatives Inquiry into Sustainable Cities that formed the basis of the case study in this thesis it became clear that the dominant storylines, based on the binary stories of decline or control, did not go unchallenged. Objections involved either reversing the ordering of the storyline, drawing on the discursive resources available in the dominant storyline to argue against the compact city as a sustainable outcome, offering alternative evidence to suggest flaws in the logic of the dominant storyline or by simply challenging the language used. These critiques offered the possibility of an alternative storylines or scenarios, framed in terms of equity rather than sprawl but were largely unsuccessful. What the case study demonstrated so clearly is how difficult it is to disrupt dominant understandings given the way in which the ‘problem’ of unsustainable cities was defined in the first place.

This insight has implications for environmental and sustainable city policy-making. Although numerous studies have identified the need to democratize decision making processes within environmental and sustainability policy making, the dominant approach is to appeal to concepts of dialogue, open-ended-ness and inclusion. What the case study demonstrated is that within discussions about sustainability appeals to inclusion, based on an assumption that ‘we’ all need to be involved often leads to exclusion because of the way in which the dominant storylines establish a them/us distinction. I have argued that simply including categories or stakeholders does not necessarily lead to inclusion without examining the terms of the debate in the first place.

10.3 What are the basic terms and conditions upon which agreement or consensus are reached?

What did became clear, however, in the case study is that the term ‘sprawl’ and the storylines that can be derived from it effectively allowed discussion to take place. It allowed participants with different interests and concerns, ideas and aspirations to engage in discussion and debate using a common language. The term sprawl, a metaphor to denote all that is wrong with cities, functioned to evoke the dominant storylines of decline versus control, allowing participants from diverse backgrounds – industry, business, government, NGO’s and private individuals to engage in discussion even though their interests
and concerns were often quite different because, as Hajer points out, ‘…a storyline combines elements of the various discourses into a more or less coherent whole, thus concealing the discursive complexity (Hajer, 2006, p. 70). During the House of Representatives Inquiry into Sustainable cities these storylines clearly allowed discussion to take place while at the same time limiting the outcomes.

10.4 Which understandings come to dominate and which are marginalized?

As I have demonstrated responsibility for the unsustainability of Australian cities and the implementation of ‘sustainability’ measures was placed firmly in the hands of ‘ordinary’ everyday citizens as consumers. Consultation was overriding conflated with ‘information’ and awareness-raising not only during the inquiry but also in the final report with its emphasis on national targets and the development of market mechanisms so that the ‘community’ could and should make informed decisions. Identification of the villains as ordinary consumers effectively exonerated business, industry and government from responsibility other than to develop techniques to change consumer behavior. This meant that questions around the equitable distribution of resources or of locational disadvantage were deflected or overlooked. Sustainability became a matter of individual choice instead. Throughout the inquiry adherence to the dominant storylines of decline and control also effectively constrained what could be spoken and written about and perhaps more importantly what ‘issues’ could be included and whose voices were heard. And this ready acceptance was clearly based on a range of assumptions embedded in those storylines adopted from elsewhere rather than a serious consideration of the issues involved, the context, or of broader evidence. Sustainability and the Sustainable city effectively became a matter for expert definition and consumer compliance.

10.5 What storylines and subject positions are available to participants in sustainable city discourse?

Two dominant cultural stereotypes emerged during the House of Representatives Inquiry: the suburban dweller and the consumer both of which are clearly linked along with the sustainable citizen who lives in the inner city and who knows how to behave. This use of generalized language and stereotypes in sustainable city discourse, I argued, masks underlying conflict because the ‘villains’ - consumers, and
suburban dwellers remain apolitical concepts referring to everyone but at the same time no one in particular. This leads to a diffusion of responsibility so that ‘everyone’ and at the same time no one is to blame. This insight has important implications not only for the outcome of the Inquiry but for decision making about the transition to sustainability and sustainable cities more generally. It raises the question how transformation or change possible.

10.6 How is transformation or change possible?

This research demonstrates how adherence to the dominant storylines of decline and control effectively constrains what could be spoken and written about and perhaps more importantly what ‘issues’ could be included and whose voices were heard in sustainability and sustainable city discourse. As we have seen in sustainable city discourse the choice between a future of decline or a future of control, or a sustainable or unsustainable future leaves no choice at all. And this lack of choice leaves little room for dialogue and deliberation beyond the constraints of the discourse. Appeals to ‘consensus’ writes out the possibility of framing sustainability as a political question, based as they are on an understanding that conflict can be overcome; that through dialogue and exchange agreement can be reached. The inclusion of more voices in the discourse I have argued will not necessarily lead to transformation of the dominant discourse without careful attention to the way in which the ‘problem’ of unsustainability is framed in the first place. Moving beyond what has been described a ‘shallow’ consensus requires careful attention to the stories we tell ourselves and others and which frame our understandings of the ‘world’ and of ‘reality’ in the first place. The role of the researcher here is not to define new characters and new storylines but rather to reveal to participants in policy discussions how positions, storylines and cultural stereotypes limit what can be spoken and written about in discourse, so that they can in turn disrupt those understandings. To do otherwise is to position oneself as a ‘convincer’ ‘the wrong position to achieve change (van Langenhove and Harre 1999, p. 138).
Jacobs (2006) has identified two substantive reasons why discourse analysis can be utilized in the field of urban policy. Firstly, while he notes the role of traditional policy research in uncovering the ‘bureaucratic modes of organization, managerial and implementation practices’ he argued that it has been less successful in providing an analysis of some of the power and ideological conflicts that influence the deliberation of policy implementation’ (Jacobs 2006 p. 39-40). Secondly, he argues researchers have increasingly recognized the role language in the policy arena where discourse analysis can ‘provide significant insights that are not always evident from other research methodologies’ (Jacobs, 2006 p. 40). These insights are particularly significant for scrutinizing ‘some of the ways in which language is used to pursue political and organizational objectives as well as how policy documents are interpreted by their intended audiences (Jacobs, 2006 p. 40).

The work undertaken here builds on and contributes to work in sustainable city research and narrative policy analysis employing a discursive approach. The methodology adopted draws in particular on narrative policy analysis and positioning theory to develop a method for not only structuring the thesis but also for analyzing data. Using the concept of storylines or narratives is not unfamiliar in commentary on environmental and sustainability discourse although often what is meant by storylines, how storylines function in discourse and the methods employed in analysis are often not articulated (see for instance McManus 1996). Within the context of sustainable city discourse no studies to my knowledge have focused closely the way in which those storylines function in policy discussions in Australia. While a number of commentators have expressed frustration with the binary nature of sustainable city discourse and how it limits the possibility of thinking about the future of Australian cities differently (Anderson 2006; Bamford 2004; Gleeson 2008) no studies to my knowledge have undertaken the in depth textual analysis involved in understanding how those storylines function to both enable and constrain what can be spoken and written about. As such the study provides additional insights into the field. A focus on storylines allowed for the possibility of moving beyond the binary nature of the sustainable city discourse as outlined in chapter 6 – where sprawl is characteristically equated with decline and unsustainability and
compaction or the compact city with sustainability towards and an understanding that focuses on the alternative questions - sustainability of what and for whom.

10.8 Limitations

The aim of the case study undertaken in this research was firstly, to consider how dominant ideas about what constitutes a ‘sustainable city’ frame debate in Australia and with what consequences. In order to do this the focus moved from an examination of broader discourses around sustainability and sustainable cities, or the macro level, towards the specific site of argumentation (Hajer 2006, p. 72) or the micro level using an example or case study. The overall aim was to develop a method for analysis that would allow a level of open-endedness and sensitivity to the richness of the data rather than arrive at fixed and generalizable ‘finding’. In other words the use of a single case study yielded outcomes that are not generalizable but none-the-less useful for understanding discursive constraints. The outcomes of the research, therefore, do not focus on what a sustainable city should or could be, or how agreement can be reached but rather a methodology and a method for analyzing sustainability talk and text.

10.9 Future research

The methodology and methods developed in this thesis have broad applicability in the field of sustainable city policy. I have argued that when confronted with a difficult and contested concept like sustainability the impulse and the tendency is to attempt to define or fix its meanings once and for all so that the task of implementation can proceed. Appeals to a sense of urgency, ‘crisis’ or being ‘out of time’ add weight to these calls for implementation. The methods developed in this research allow for the possibility of moving beyond the impulse to define and decide what sustainability could or should mean in practice allowing for an open-ness to other voices and other ways of talking and writing about sustainability and in the process enriching the field.
References


Downloaded 26th September, 2010


Australian Bureau of Statistics 2008 *Year Book Australia 2008* Commonwealth of Australia, Canberra  
ABS CATALOGUE NO. 1301.0

Baker, S, Kousis, M, Richardson, and Young, S. 1997 *The Politics of Sustainable Development: Theory, Policy and Practice within the European Union* Routledge, USA and Canada


Beder, S 1993 *The Nature of Sustainable Development* Scribe Publications, Newham, Australia

Bell, S and Morse, S. 2008 *Sustainability Indicators: Measuring the Immeasurable?* Second Edition, Earthscan, UK and USA


Bogart, William T. 2006 *Don’t Call it Sprawl; Metropolitan Structure in the 21st Century* Cambridge University Press, New York


Bruegmann, Robert 2005 *Sprawl: a Compact History* University of Chicago Press, Chicago


Cameron, J. and Gibson, K. 2005 ‘Participatory action research in a poststructuralist vein’ Geoforum 36, pp. 315-331

Carson, R 1962 Silent Spring Houghton Mifflin, USA


Chavan, A, Peralta, C and Steins, C 2007 Planetizen: Contemporary Debates in Urban Planning, Island Press, USA


Cooper, P. J. and Vargas, C. M. 2004 Implementing Sustainable Development: From Global Policy to Local Action Rowman & Littlefield Publishers Inc., USA

Commoner, B. 1971 The Closing Circle Knopf, New York


Daly H.E., Cobb, J.B and Cobb, C.W. 1989 For the Common Good: Redirecting the Economy toward Community, the Environment, and a Sustainable Future Beacon Press, Boston

Daly, H.E. 2007 Ecological Economics and Sustainable Development: Selected Essays of Herman Daly, Edward Elgar Publishing Ltd, UK and USA.


Davidson, D 1997 ‘The Great Australian Sprawl’ in Historic Environment Vol. 13, No. 1


de Beaugrande, R. 2004 ‘Critical Discourse Analysis from the perspective of Ecologism’ Critical Discourse Studies Vol. 1, No. 1, April 2004


Department for Environment, Food and Rural Affairs 2009 Sustainable Development Indicators in Your Pocket Defra Publications, London

Department of Infrastructure and Transport 2010 State of Australian Cities 2010 Commonwealth of Australia, Canberra


Department of the House of Representatives 2010 Info Sheet No. 4 Committees House of Representatives, Canberra


Ehrlich, P.A. 1968 The Population Bomb Ballantine Books, USA

Ehrlich, P.A. 1971 The Population Bomb Bucaneer, Cuthogue, N.Y.


Environment Australia 2001 *Are we Sustaining Australia? : A Report against Headline Sustainability Indicators for Australia* Environment Australia, Canberra


Fishman, R. 1982 *Urban Utopias in the Twentieth Century: Ebenezer Howard, Frank Lloyd Wright, Le Corbusier* MIT Press, USA.


Flyvbjerg, B. 2006 ‘Five Misunderstandings about Case-Study Research’ *Qualitative Inquiry* Vol. 12, No.2, pp. 219-215


Gillham, Oliver 2002 The Limitless City: A Primer in the Urban Sprawl Debate. Island Press, USA.


Downloaded 25th June, 2009

downloaded 25th June, 2009


Hollicks, M. 'Questioning Sustainability', Chain Reaction 62, October 1990, pp. 20-23.


Kolb, D 2008 Sprawling Places University of Georgia Press, Athens, Georgia.


Neumayer, E. 2003 Weak versus Strong Sustainability: Exploring the Limits of Two Opposing Paradigms Edward Elgar Publishing Ltd, UK.


Nozzi, D 2003 Road to Ruin: An Introduction to Sprawl and How to Cure It Praeger Publishers, Westport CT.


Prugh, T, Costanza, R and Daly, H. E 2000 The Local Politics of Global Sustainability Island Press, Washington D.C.


Sustainable Seattle 1998 *Indicators of Sustainable Community*, Seattle, Washington, USA

http://sustainableseattle.org/Programs/IndicatorsIntoAction/regionalindicators/1998indicators/ downloaded 10th October 2010


Time Magazine 1970 ‘Fighting to Save the Earth From Man’ 22nd February 1970


U.S.Census Bureau 2011 ‘World POPclock Projection’


Wright, Frank Lloyd 1958 *The Living City* Horizon Press, New York


Discussion Paper

Sustainable Cities 2025

The discussion paper does not present the views or conclusions of the Committee
The House of Representatives Standing Committee on Environment and Heritage is undertaking a new inquiry into Sustainable Cities 2025. The inquiry is timely given that 2004 is the Year of the Built Environment and there will be a national focus on the spaces we live in and how we improve the liveability of our cities and settlements.

The inquiry into Sustainable Cities 2025 seeks to identify current and future patterns of settlement, the sustainability issues associated with these settlement patterns, and how government policy might ensure that developed areas retain an Australian lifestyle without diminishing the future value of Australian eco-systems.

The purpose of the inquiry is not to set specific actions for particular areas, but to provide a ‘national map’ of issues and approaches. This discussion paper scopes some of the issues currently being raised in discussions and research into sustainability of Australian cities.

The attached discussion paper identifies several components which contribute to a sustainable city, and outlines the issues and vision of these components. At this stage, there are many more questions than answers. Two key issues for industry, government and communities is how to balance these components, and what innovative alternatives or international models can usefully be applied to the Australian situation. As a nation, once we can define a vision and a set of objectives for future city settlements, a critical issue will be developing the implementation strategies to achieve that vision.

This discussion paper is not a definitive approach to the issues of sustainable cities in Australia. It considers only part of the terms of reference for the inquiry by raising issues and questioning what vision we have for a sustainable city and so how we might develop a blueprint for the future.

The discussion paper does not present the views or conclusions of the Committee.

The purpose of the discussion paper is to scope some of the key areas central to developing a blueprint for a sustainable city, and to canvas for input from a wide range of professions, community groups, local and state governments, researchers, businesses, industry associations and individuals. The aim of this paper is to assist and challenge those who may make a submission or otherwise assist the Committee in the inquiry.

Submissions to the inquiry may respond to the discussion paper or to all or some of the terms of reference. Details of the terms of reference and making a submission to the inquiry are provided overleaf.
Terms of Reference

Inquiry into Sustainable Cities 2025

The Committee will inquire into and report on issues and policies related to the development of sustainable cities to the year 2025, particularly:

1. The environmental and social impacts of sprawling urban development;
2. The major determinants of urban settlement patterns and desirable patterns of development for the growth of Australian cities;
3. A ‘blueprint’ for ecologically sustainable patterns of settlement, with particular reference to eco-efficiency and equity in the provision of services and infrastructure;
4. Measures to reduce the environmental, social and economic costs of continuing urban expansion; and
5. Mechanisms for the Commonwealth to bring about urban development reform and promote ecologically sustainable patterns of settlement.

Submissions can be e-mailed to Environment.Reps@aph.gov.au

Or sent to the following address:

Environment and Heritage Committee
House of Representatives
Parliament House
Canberra ACT 2600

The closing date for submissions is Friday 31 October 2003

The discussion paper is available at www.aph.gov.au/house/committee/environ
Discussion Paper

Sustainable Cities 2025: A Blueprint for the Future

Cities of the future must be sustainable cities. Above all, they must be the cities that meet the future social and economic needs of Australia within the unique context of the Australian landscape.

The sustainable city of the future will integrate the built and natural environment. The sustainable city will assist in retaining the biodiversity of Australia, have a developed infrastructure that gives efficient and equitable access to services and utilities, preserve the essentials of the ‘Australian lifestyle’ and contribute to the economic wealth of the nation.

This future vision will not be achieved without planning and without a clearly articulated strategy.

There are international initiatives to develop sustainable cities and to address many of the problems faced by expanding cities in both developed and developing nations. Local and State initiatives in Australia are also addressing specific sustainability issues for cities and urban settlements. The challenge remains for a more holistic national approach which integrates the components of an Australian sustainable city and provides a model which can be devolved to and adapted by State and local governments.

There are several components to a sustainable city. The following are suggested as a set of visionary objectives for the Australian sustainable city.

The sustainable Australian city of the future should:

1. Preserve bushland, significant heritage and urban green zones;
2. Ensure equitable access to and efficient use of energy, including renewable energy sources;
3. Establish an integrated sustainable water and stormwater management system addressing capture, consumption, treatment and re-use opportunities;
4. Manage and minimise domestic and industrial waste;
5. Develop sustainable transport networks, nodal complementarity and logistics;
6. Incorporate eco-efficiency principles into new buildings and housing; and
7. Provide urban plans that accommodate lifestyle and business opportunities.
1. **Preserve bushland, significant heritage and urban green zones.**

Environmental conservation and urban expansion were traditionally only considered together when their borders touched or interacted – that is where urban development encroached on habitat or significant ecosystems.

As urban areas expand, a harmonised rather than frontier approach is required to retain Australia’s biodiversity, eco-systems and to provide settlements which can be co-habitated by people, flora and fauna. The urban environment should continue to be uniquely Australian and the features of the landscape should not be ghettoised to isolated non-inhabited parts of the country.

Urban green zones provide important health and lifestyle benefits, aiding in pollution reduction, providing recreational opportunities and areas for community gatherings.

Similarly, the built heritage is under pressure in areas of growth and housing expansion. National approaches to preserving bushland, conservation of built heritage and urban green zones should be aimed at integrating natural and built environments. To achieve this broadacre (or whole of landscape) planning, embracing identified areas of significant heritage and conservation value, needs to take place across both public and private, and new and existing regions of development.

**Questions for Consideration**

- *Does the inclusion of green zones within city planning result in further urban sprawl, which has a greater detrimental effect for the environment by encroaching on more surrounding bushland?*

- *What are the possible impacts of either increasing or limiting the proportion of bushland and urban green zones?*

- *Can green zones be multi-purpose – serving the recreational and social needs of city dwellers while also providing habitat and environmental benefits for native flora and fauna?*

- *Is it appropriate to provide incentives to encourage partnership arrangements with land holders and developers to preserve remnant vegetation on private lands?*

- *How do we ensure that preserved sites of built heritage are culturally valued and appropriately integrated into planned developments?*

- *How do we ensure that public green zones are integrated into new developments?*
2. **Ensure equitable access to and efficient use of energy, including renewable energy sources.**

As cities grow and energy needs escalate, there are problems of meeting the supply of inner city and industrial areas, and providing the infrastructure to deliver energy to spreading developments. Inefficient energy usage results in higher energy needs and increased air emissions.

To meet future consumption needs and manage air emissions, the sustainable city must diversify its sources of energy generation and, where possible and appropriate, incorporate renewable energy sources.

A sustainable city would successfully uncouple economic growth from increased energy consumption.

Lower energy consumption rates, greater efficiency and increased use of renewable energy sources have potential benefits to city settlements in terms of infrastructure costs, air emissions and more secured long term access to energy sources.

**Questions for Consideration**

- How might we implement a shift from the existing large-scale energy generation and distribution infrastructure towards an alternative model?

- How can the uptake of renewable energy for residential and commercial properties be promoted?

- What are the impediments to utilising renewable energy sources in residential, commercial and industrial areas and how might these be addressed?

- Should renewable energy generation be promoted at the single dwelling level or across city regions?

- Are there economic, and hence social, implications of a city increasing its use of green power and developing new complexes which are predominantly self-sufficient in terms of energy generation?

- Should higher efficiency standards be mandated for all new dwellings, appliances and business operations?

- How can residential and commercial developments incorporate renewable energy generation into planning and construction?

- To what extent should public transport systems seek to change to renewable energy sources?
3. **Establish an integrated sustainable water and stormwater management system addressing capture, consumption, treatment and re-use opportunities.**

With urban sprawl and the expansion of low density housing at city outskirts, cities of the future will undoubtedly exceed the existing capacity of surrounding water supplies and receiving waters. The characteristic approach of many large cities to water and stormwater management (that is, piping in large water supplies and piping out equally large quantities of waste water), cannot be efficiently maintained as the consumption and geographical size of a city expands.

Treated waste water and collected stormwater is traditionally discharged to the coast or waterways. This practice is detrimental to the marine or riparian environment, and represents a waste of what might otherwise be a valuable water resource. A change in water management methods is needed alongside changed settlement patterns.

With the development of more high density and transit-orientated urban villages, there is the potential to also develop more localised, small scale systems of urban water treatment, including water harvesting, treatment and recycling.

**Questions for Consideration**

- Should cities of the future be looking to develop more localised small scale systems of urban water management?

- What scale of residential water management systems is most efficient and sustainable?

- How do we transform existing developed city areas into more sustainable water management systems?

- How do we encourage areas to abandon existing waste water systems, which may discharge to the ocean or other waterways, in favour of alternative waste water treatment methods?

- What incentives or market based instruments might be appropriate for residential and commercial enterprises to encourage responsible water consumption and re-use?

- Are more standards and guidelines needed for new development to minimise waste and storm water and to maximise capture and re-use opportunities?
4. Manage and minimise domestic and industrial waste.

Larger cities have been characterised by larger amounts of waste which is more difficult and costly to transport to depots for treatment. The sustainable city must more fully embrace the ethos of product stewardship with suppliers and purchasers recognising a responsibility for the waste generated from production processes, packaging and consumption.

A sustainable city must unite the community, industry and government to push for and implement sustainability within their spheres of influence. The sustainable city cannot relegate its waste or the environmental cost of its consumption patterns to regional areas, pockets of landfill or city industrial zones.

City consumption must take into account the production process that occur within its metropolitan limits and also those which indirectly contribute to servicing consumer needs. It is not sufficient for a city to locate within its boundaries green businesses which minimise waste and operate on eco-efficient principles if, beyond those city limits, other production systems which produce goods or input for city consumption, are not infused with the same environmental accountability. While environmental accountability must be driven by a national agenda, the sustainable city must inculcate this ethos of local responsibility for production processes and their environmental impacts.

Cities will continue to be economic epicentres and the size of industrial hubs will grow alongside residential city expansion. Cities must be designed not just for people, but also for the production of goods and services which meet the demands of city dwellers, provide employment opportunities and generate economic wealth for the nation.

Australia is currently one of the highest consuming societies in the world – a reversal of this trend is fundamental to the development of sustainable cities in Australia. We must increase efficiency, reduce the volume of waste and manage more appropriately that waste through treatment and recycling.

A sustainable city must embrace green businesses and driven by corporate environmental awareness. Sustainability initiatives, including energy efficiency and waste and water management, cannot happen ‘around’ industry. They must have the active commitment and leadership and participation of industry.

Questions for Consideration

- **How does a sustainable city bring about attitudinal change and encourage its inhabitants to accept greater responsibility for waste minimisation and management?**

- **What types of industry are appropriately located within cities, and how do sustainable cities respond to production processes and waste treatments that exist to meet city consumption patterns but occur outside of city limits?**
What strategies are appropriate to encourage eco-efficiency and the reduction of domestic waste?

What strategies are appropriate to encourage eco-efficiency and the reduction of industrial waste?

Are there economic impacts for a sustainable city in dictating higher environmental standards and waste treatment?

What is the role of industry in ensuring sustainable cities, and what incentives or standards are appropriate to achieve this?

How can industry be encouraged to be more socially and environmentally responsible, and to work in partnerships with local communities?

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

Many Australian cities have been constructed around the automobile. This has created a culture heavily reliant on private automobile access. The potential problems of this reliance include: environmental impacts (such as urban sprawl, smog and air pollution); economic costs (from providing urban infrastructure across a more dispersed geographical area); and social impacts (including isolation, economic stratification of areas and reduced access to public services).

Sustainable transport logistics are vital to reversing the problems caused by automobile dependence and to providing cities which are equitable, accessible and economically viable.

Transport systems encompass more than the movement of people or commuters across the city. Transport logistics must also take into account the needs of businesses and industry to service the city and manage incoming and outgoing goods. The transport logistics of a sustainable city recognise the need for a more comprehensive network of complementary transport systems with transport nodes forming the focus of urban villages.

This transport network has multiple systems operating in a decentralised manner that enables a web of travel directions and nodal hubs of work, industrial, residential and recreational connections. Many major cities have been constructed around a feeder transport system that channels cars and public transport into the centre city – which is the traditional employment and commercial hub. The sustainable city must transform this ‘feeder’ mentality to a more nodal and decentralised network. However this transformation must take place alongside changes in residential planning patterns and employment centres.
Transport logistics must also ensure that alternative means of transport, such as train, tram, pedestrian or cycling, is well serviced and the infrastructure exists to facilitate interconnecting commuting travel (eg lockable bicycle sheds at transit nodes, workplaces with showering facilities, well lit pedestrian walkways which bypass major road crossings and a range of public transport systems which are complementary, safe and affordable).

The opportunity to secure the advantages offered by different nodes of transport needs to be pursued with measures to enhance their complementarity through coordination and integration.

The need for a complementary array of public transport systems is also underpinned by the possibilities of using renewable energy sources to power these vehicles, further reducing air emissions and reliance on conventional fuels.

Questions for Consideration

• What initiatives can assist in the reduction of automobile dependence?

• Should new transport technologies, such as electric cars and buses, be promoted as alternative to conventional fuels?

• What are the features needed in new settlement areas to encourage more diverse and sustainable transport networks?

• What is the role of federal government in assisting metropolitan areas to restructure transport networks in line with more sustainable settlement patterns?

• What are the needs of transport systems for them to be equitable, accessible and economically viable?

• Is a more decentralised nodal type of transport network appropriate for commuter and traveller needs?

• What are the transport logistic needs of industry and how can these be managed in a sustainable city?

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

Australia has demonstrated capability and expertise in utilising eco-efficiency principles in design and construction. This capability and expertise must become mainstream if we are to transform existing built areas as well as new development into
models of sustainability. To meet the goals of reduced energy and water consumption and re-use and to increase the useability and liveability of commercial and residential premises, more innovative approaches to the development, construction, and refurbishment of buildings are needed.

In commercial premises, incorporating eco-efficiency principles may demand a greater partnered approach across lessees of a building. It will be important to establish the economics of green buildings to ensure that the knowledge about alternative more sustainable design principles and materials is more readily available through mainstream architects and construction companies. In residential premises, the economic impetus for eco-efficiency must also be recognised and the savings and the comfort of ‘green designs’ must be given a value in the marketplace.

In a sustainable city, better practices need to be incorporated into new construction and encouraged as part of major ‘retro-fits’ and renovations.

Questions for Consideration

• How can green construction and refurbishment techniques be integrated into standard building practices?

• How can eco-efficiency innovations be promoted to achieve a market value in both commercial and residential buildings?

• What are the impediments to eco-efficiency principles being taken up across new housing developments and commercial areas?

• What type of incentives or standards for new developments might be appropriate to encourage more sustainable residential complexes?

• Are existing building standards and product labelling sufficient to enable informed consumer choices and to ensure that the use of eco-efficiency materials and designs and are maximised?

7. Develop urban plans that accommodate lifestyle and business opportunities

There are an increasing number of urban dwellers; however this increased population is not homogenous. Rather, the increase in city inhabitants is accompanied by a diversification of lifestyle preferences ranging from high density inner city apartment dwellers to the small acreage on city outskirts to self-contained village type suburban lifestyles.
In growth urban and suburban areas, a dichotomy of development is emerging that features both larger dwellings on smaller allotments and ‘rural residential living’ – both claiming lifestyle appeal. ‘Empty nesters’ and ageing communities continue to occupy large family homes and are reluctant to leave familiar neighbourhoods and valued services.

There are a number of possible planning scenarios that could shape our future cities. However, allowing cities to continue to plan without strategic forethought can only result in more dispersed cities characterised by economic stratification, high infrastructure costs, and inequitable access to and provision of public services. Possible planning designs include:

- The compact city which increases high density inner city living;

- The edge city which increase population density at selected outer nodes and increases investment in public transport and freeway networks which interconnect these nodes;

- The corridor city which encourages growth along city arterials and retains the inner city as the central hub with upgraded public transport radial links;

- The fringe city which expands to develop new centres on the outer regions of the city; and

- The ultra city which stimulates business centres in surrounding regional townships and provides high speed commuter linkages.

Integral to some of these possible designs are decentralised concentrations of residential and commercial developments, or ‘urban hubs’. Urban hubs typically include a range of community and support facilities, recreational services, landscaping of public spaces and residential complexes catering for family and professional needs.

Depending on the design of the development and the degree of planning, urban hubs can be designed for self-sufficiency in the management of waste, water collection and re-use, and energy generation. If areas of developments are focussed around transit zones and connect to the larger city transport network, then automobile dependence can also be minimised.

Some savvy developers are already promoting lifestyle opportunities where subdivisional layout, house design and placement, services, public spaces and facilities are embraced as part of an integrated development.

Questions for Consideration

- What planning models and zones can we use to accommodate the different lifestyle needs and preferences of Australians in cities?
• Are urban hubs and communities concentrated around public transit nodes an appropriate future model to suit Australian lifestyle needs?

• How do we transform existing suburban and inner city developments into more sustainable forms of community living?

• How do we ensure that further urban expansion occurs as planned community developments?

• Are there dangers in developing decentralised cities with multiple urban hubs and how do we address these issues?

• What community, commercial and biodiversity needs should be addressed in developing new urban centres?
Sustainable Cities 2025: Case Studies

A sustainable and liveable city will require sound urban planning, affordable and sustainable buildings, a reduction in car dependency, provision of urban green zones and bushland, clean airways and waterways and an overall improvement in energy efficiencies. The difficulty of achieving this vision is the challenge of developing and implementing a holistic strategy that addresses the several components of a sustainable city.

National and internationally there are innovative examples of sustainability initiatives although these examples predominantly focus on specific aspects of sustainability rather than a city-wide vision. However, some of these examples may provide models to assist in building a blueprint for a sustainable Australian city.

The following three case studies highlight examples of:

1. A sustainable commercial building in Melbourne.
3. A sustainable transportation strategy, which reduces automobile dependency, in Vancouver.

According to the United States Department of Energy’s Center for Sustainable Development, buildings consume 40% of the world’s total energy, 25% of its wood harvest and 16% of its water. Sustainable buildings, incorporating passive and active solar energy, rain water collection and grey water reuse, can provide environmental, social and economic benefits to both residential and commercial occupants.

The 60L Green Building in Melbourne and the Christie Walk housing area in Adelaide provide examples of developments that have incorporated sustainability features into their design, construction and operation.

With the exception of Americans, Australians rely on their cars more than any other nation and our cities have been designed around the automobile as the dominant form of transport. Automobile dependence is a key reason for Australians being among the highest air polluters per capita in the world.

Vancouver provides an example of an integrated transport strategy which has reduced automobile dependence by linking urban centres, providing access for bicycles and pedestrians and incorporating parklands and urban bushland into the city landscape.
1. **60L Green Building – A Sustainable Commercial Refurbishment**

The 60L office building, completed in September 2002, is located in Carlton, Melbourne. It was developed by the Green Building Partnership and is a prototype for Australia’s sustainable commercial building sector. Its innovative concept and design sets a high but economic and commercially achievable standard for others to follow.

In contrast with conventional buildings, the 60L Green Building has minimal environmental impact, and was built for a cost similar to that of a less-sustainable commercial building. Its design also guarantees significantly lower running and tenancy costs. The project aimed to provide an environmentally healthy building for its occupants and also to raise awareness within the construction industry. Accordingly, the project deliberately used mainstream architect and construction companies to demonstrate how achievable it is to design and furnish a sustainable inner-city commercial building.

**Economic returns**

Construction and refurbishment costs of the sustainable 60L Green Building are comparable to the standard construction and refurbishment costs. However, the 60L building delivers significant environmental benefits, comfort and health benefits to the building occupants and significantly reduced running costs. In comparison to a conventional office building, the 60L Green Building has:

- Expected energy savings of over 65%;
- Reduction in lighting costs of over 80%;
- Over 60% reduction in equipment, ventilation, heating and cooling costs;
- Approximately 100% reduction in annual carbon dioxide emissions; and
- 90% savings in average annual mains water consumption.

While some commercial buildings incorporate particular energy efficiency features, 60L is unique in achieving high environmental standards and efficiency in all areas of construction and operation. It also is unique in providing a workplace largely free of toxic emissions from furniture and fittings.

**Construction materials**

- Approximately 80% of the timber used in 60L is recycled. The remaining 20% is from plantation timber;
- All bricks used have been recycled and cleaned without acid;
• Reinforcing steel is from recycled sources;

• Galvanised steel has been used in preference to stainless steel which requires higher levels of energy in its production process;

• PVC use has been reduced by 50% and wherever possible low toxic materials have been used; and

• The concrete used has a 60% recycled component.

• Carpets are made from recycled and low-toxic materials.

Energy Consumption and Generation

60L maximises the use of thermal mass for heating and cooling. The building’s computerised environmental management system automatically adjusts internal and external louvres to retain even temperatures.

The building incorporates double-glazing, low energy glass, and north and west windows for winter sun. It utilises light shelves, light wells and an atrium to provide natural lighting, supplemented by high efficiency fluorescent lights when required.

60L has rooftop photovoltaic arrays for electricity generation. Any additional energy requirements are purchased through a green-power scheme. The use of embodied energy in construction materials has been off-set by purpose-specific tree planting in western Victoria.

Water Management

60L uses 90% less mains water than a similar conventional building. Rainwater is collected, micro-filtered and UV sterilised for use within the building. Water-efficient showers are fitted in the building.

All waste water passes into an in-house biological sewage treatment plant after which it is used for toilet flushing, the rooftop and internal gardens. Excess water is discharged, as treated water, to the municipal sewage. The residual solid sewage waste is utilised on farms in western Victoria.

Alternative Transport and Green Spaces

The workplace facilitates walking and cycling by incorporating a bicycle storage area, on-site showers and change rooms.

A rooftop garden has been designed to enhance the aesthetics of the inner city and provide an outdoor space for employees. The garden uses native plants and is watered using on-site treated waste water.
2. **Christie Walk – A Sustainable Housing Development**

Christie Walk is a community housing development on a 2000 square metre block of land in inner-city Adelaide. It is being developed as a pilot project demonstrating how communities can provide sustainable inner city living through:

- Water and energy conservation;
- Material reuse and recycling; and
- Shared landscaped areas and community spaces.

Stages 1 and 2 of the project have been completed and stage 3 is underway. The project consists of 14 dwellings which include four linked three-storey townhouses, a three storey block of six apartments, four stand-alone cottages and a ‘community house’. The land is owned by the Wirranendi development co-operative during construction and individual properties are sold on a community title. A range of dwelling types are represented in the project with differing configurations, orientations and construction systems to demonstrate the variations of environmental design to meet lifestyles choices and climatic conditions.

Each purchaser owns their own dwelling and also shares ownership and responsibility for the landscaped community areas. These areas include a community garden, and a ‘cohouse’ (community house) with a kitchen, small general purpose hall and a laundry. To date, properties in the development have sold well.

**Construction Materials**

Timbers are plantation or recycled. Floor decking is generally made from a compressed straw product, which is equivalent to particle board but contains no woodchips or formaldehyde. Paving, carports and feature elements incorporate bricks, stone, steel and timber retrieved from the demolition of pre-existing structures on the site.

All concrete in slabs and mass walls contains the maximum percentage of flyash permitted. Flyash is a waste product from power stations and its addition reduces the amount of new cement used in the construction (cement production is one of the largest single global contributors to greenhouse gas emissions).

All finishes, including paint and varnishes, are chosen on the basis of environmental and non-toxic criteria.

**Energy Generation and Efficiency**

Mains electricity is drawn from the grid but photovoltaic panels generate electricity for sale to the local energy utility. On completion it is expected that the site will be a net
energy exporter for much of the year as the design and efficiency of the dwellings means that energy requirement are minimal.

All dwellings have solar hot water and a shared system of banked solar panels. All new appliances have high energy efficiency ratings; companies with a recycling program were favoured when specifying appliances.

**Heating, Cooling, Lighting and Insulation**

Each house works as a ‘thermal flue’ allowing controlled release of warm air while drawing in filtered, cooled air from the vegetated, landscaped surroundings. Window placement and planned vegetation planting ensures that natural lighting is maximised. Most windows are double-glazed. Rooftop gardens provide a thermal buffer to the upper floor apartments.

The concrete slabs provide substantial internal mass, particularly to the cottages and apartments. External and internal walls are made from either an aerated concrete product or other materials which have high thermal and acoustic insulation properties. This places an additional thermal mass between the townhouses and also assists in noise reduction between dwellings.

The apartments use cross-ventilation and high thermal mass for cooling. Some ceiling fans are included to assist in maintaining air flow on still days. However there are no heaters or air conditioners and the expectation is that none will be needed to supplement the passive heating and cooling of the houses.

**Water Management**

All water shed by the roofs, balconies and other impervious surfaces is collected for use on site. After filtering, the water is used for irrigation and toilet flushing, reducing the total water importation to the site. An onsite chlorine-free sewage treatment system is being purchased. Composted solids will be taken to rural sites as fertiliser and the filtered effluent returned to the second-class water supply through the on-site stormwater system.

**Access and Green Spaces**

The development is designed to take advantage of its inner-urban location and maximise access to a range of public transport services. There is no internal traffic within the development and there is limited provision car parking.

Outdoor spaces encourage walking. Low water use plantings favour native species. Some exotics have been chosen where appropriate to suit passive design considerations.
3. **City of Vancouver – A Sustainable Transport Strategy**

Unlike many developed cities, Vancouver has evolved a transportation system which is not dominated by freeways. In the 1950s and 1960s, a community-based movement fought and won its battle to keep freeways out of central and inner Vancouver. Since developing alternative transport strategies, Greater Vancouver has had high levels of transit use with 117 trips per person in 1991, compared to 63 trips per person which is the average for a large American city.

The accessibility of the city and the continued absence of large freeways and automobile-dominated transit routes have made Vancouver a leading example of a sustainable transportation system.

**Strategies for a Sustainable Transport Network**

In the past, Vancouver faced similar population settlement trends to most developed cities. Increasing numbers of city dwellers increased the geographical size of the city resulting in longer commuting distances, more traffic congestion in central city areas, deterioration in air quality and a shrinking proportion of open spaces.

Vancouver’s sustainable transport strategy has managed to reverse or at least limit many of these trends. The strategy is based on:

- Reducing automobile access to some areas and introducing measures to slow traffic along commercial zones (such as speed restrictions, uncontrolled intersections and frequent pedestrian crossings);
- Facilitating the use of alternative modes of transport through different types of pedestrian and cycle ways;
- Implementing a range of interconnecting public transport systems (including diesel and electric trolley buses, Skytrains and suburban commuter rail systems) that network across the city and within the central city region;
- Introducing additional costs for city automobile usage through gasoline surcharges and parking fees;
- Developing mixed-use medium to high density developments along outer transit routes and in urban villages around Skytrain stations. Unlike traditional outer urban sprawl, these areas are well serviced by accessible transport systems and are therefore not automobile dependent; and
- Re-urbanising some inner city high rise areas by investing in interconnecting transit networks. Walking and cycling opportunities are also provided through these dense areas by zoning mixed land-use along the main street, building wide pathways and maintaining landscaped parklands.
Complementary Urban Development Strategies

In conjunction with the development of a sustainable transport network across the city, Vancouver has transformed the types of urban developments taking place. Vancouver’s Urban Containment Policy, introduced in 1990, designates certain land unavailable for urban development. This policy also encourages development at regional centres, based around the Skytrain network that enables walking and cycling within station precincts and provides good access to fast, frequent rail travel for longer trips.

Development has also been concentrated on publicly owned vacant sites, land severely impacted by the rail system, and land which is underutilized or derelict. By concentrating construction on these land types, local government has allayed community fears that the development was out of character for the local area or that redevelopment within the station precincts would compromise existing lifestyles. Any planning and rezoning has had the active involvement of the local community and any impacted neighbouring areas.

Over the 1990s, Vancouver also achieved strong re-urbanisation. Unlike the intensification of high density dwellings in many large cities, Vancouver has sought to implement sustainable re-urbanisation of inner areas through planned city developments that maximise community public spaces and provide access to interconnecting transport networks.

Complementary transport and urban development strategies have resulted in:

• The development of large-scale urban villages with good transit service and opportunities for walking or riding safely on segregated cycle systems to many destinations;

• The intensification of housing in the inner area through small-to-medium scale compact infill projects near good transit services (mostly electric trolley buses); and

• The integration of new mixed-use development in nodes around the city’s Skytrain route.

Long Range Sustainable Transport Planning

Vancouver’s long range planning for a sustainable transportation system focuses on strengthening transit networks and ensuring that new urban development is well serviced by transit routes.

The city seeks to increase transportation networks and choice by enhancing transit services and connections, controlling automobile use and providing pedestrian and cyclist priority access. Strategies to containing urban development include protecting the established green zone and concentrating ‘complete’ communities around interconnecting transit nodes.