Excerpts from

TERRITORY PLAN URBAN PRINCIPLES REVIEW

ACT Planning and Land Authority

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1 Introduction

1.1 Overview of Study

The Urban Principles work identifies principles and targets*, tests these with case studies and modelling and identifies key findings and areas for improvement in the ACT Planning Strategy.

The importance and relevance of this work is set against the growing awareness that the creation of sustainable communities will require an understanding of the interrelationships that exist between the different elements in the built and natural elements of the city and suburbs.

Canberra is facing many climatic challenges which include a hotter and drier climate and decreased rainfall. More broadly the cost of energy and fuel is increasing, placing pressure on transport, essential services and household energy costs.

Social changes will also have an impact. The ageing of the population requires a different approach to appropriate housing and support services. Renewal and greenfield developments to accommodate increased population (and decreased household sizes) will have to be considered in the context of the community's desire to protect the important identity of Canberra as the planned capital city of Australia.

The planning system has a significant part to play in creating a sustainable city for the future, for example in the location and choices of housing, minimising the use of the car by creating workplaces near residential areas and protecting green and natural spaces.

But to get a better understanding of what can be achieved through the planning system, more rigour is required to enable reporting on progress and adjustment of strategies where required. Quantification of targets and identification of indicators will assist with this understanding.

This work has been undertaken as a key component of the Sustainable Future Program overseen by the ACT Planning and Land Authority (ACTPLA). One of the biggest messages from the workshops was that a 'business as usual' approach is not sustainable in the planning, administrative and economic systems of Canberra. The need for integration of these systems was highlighted as was the need to support a performance-based approach that can monitor and respond to change. *We need to be able to measure the impact of what we do so that we can be clear about the effects of change over the long term*[1].

* Only the first part of this wider study is reproduced here as further work is being done

2 Development of Principles and Targets

This chapter analyses the context for the development of the principles and targets including the issues arising from the Sustainable Future workshops, the history of Canberra's urban form, relevant ACT Government documents and best practice from elsewhere.

In considering the issues from this research as well as through consultation (discussed in Chapter 3,) Principles and Targets are articulated with a discussion around some of the implications, constraints and applicability.

2.1 Context for Principles and Targets

2.1.2 Sustainable Future Workshops Findings

The Sustainable Futures (SF) Program is part of an ACT Government commitment to building resilience to climate change through mitigation and adaptation measures. Its purpose is to make a substantial contribution to making Canberra a more sustainable city through land use planning strategies and polices that will:

- make the urban structure and form (our city and all the spaces that are part of the city) more resilient to change
- minimize redundancy and maximise adaptability
- promote actions that will abate climate change
- reinforce Canberra's amenity and the community's open and democratic values[2].

The SF program recognises that the built environment, which includes transport, contributes more than 60 per cent of greenhouse gas emissions in the ACT. It also recognises that dealing with climate change and committing to action is now an imperative for government, business, industry and the community. It is structured to deliver new policies on sustainability and thereby affect the planning and design of Canberra at different times and at different levels; and to progressively ramp up these policies as time progresses.

The SF Program to date has been informed through a series of one-day workshops involving key professionals, academics, representatives from Territory and Commonwealth government, members of community organisations and other invited parties. The following topic areas were covered in the workshops:

- Transport / communication – towards an accessible Canberra
- Culture / knowledge – Canberra's community, sustainable living
- Energy – towards a carbon neutral Canberra
- Water / infrastructure – securing the City
- Bush Capital – our city in the landscape
- Economics / administration of sustainability – Valuing and administering a sustainable future for Canberra

The workshops supported Canberra as a compact city and recognised increased density in the existing urban areas and less development in greenfield areas was required. However the support for densification came with certain qualifications, such as attention to the design of infill development and preserving the bush capital.

Nevertheless Canberra's urban structure provides opportunities to support the compact city concept. The major town centres, supported by group and local centres served by a frequent and convenient public transport system, provide a sound basis for resilience with rising fuel costs and adaptation challenges that may arise from climate change and declining oil supplies. The structure needs to be supported and reinforced.

Another focus of the workshops was to improve performance-based planning which leads to methodological questions about the targets that should be set and how those targets should be selected. The outcomes of the workshops reinforced the need to develop a sound method for establishing a baseline and selecting targets which promote sustainable development and which are planning specific.

The development of targets to measure sustainability progress is a core component of the Urban Principles Review. This report responds to concerns such as those raised in the workshops.

Other issues addressed in the Sustainable Futures workship will be discussed in within the contect of the principles later in the Chapter.

2.1.3 History of Canberra's Urban Form

To understand the opportunities for creating and maintaining a compact city it is important to understand the history of planning in Canberra and the structure and rationale for its current urban form.

Canberra is the city that Federation created and is Australia's only fully planned city. It is one of the few capital cities in the world that were designated as such before they were created. Canberra's planning is recognised internationally as unique.

Although Canberra's planning has been fraught with conflict and division, five significant plans have been produced over the past 100 years. Each of these plans has had a significant impact on Canberra's planning and development, and each of them have attributes worth retaining and building on for the city's future growth.

The first two planning layers are Griffin's 1912 plan and his amended 1918 plan. Griffin's plan for Canberra owes its unique design to the international competition for the design of the Federal Capital and the selection of Walter Burley Griffin's plan from over 135 entries. Griffin's original plan was premised on the principle of fitting the city into the landscape and creating a city befitting its status as the nation's capital.

In 1965 the first metropolitan strategy for Canberra was developed to accommodate a population of 250,000 people. The Canberra Outline Plan established a number of important planning principles for Canberra's growth and development:

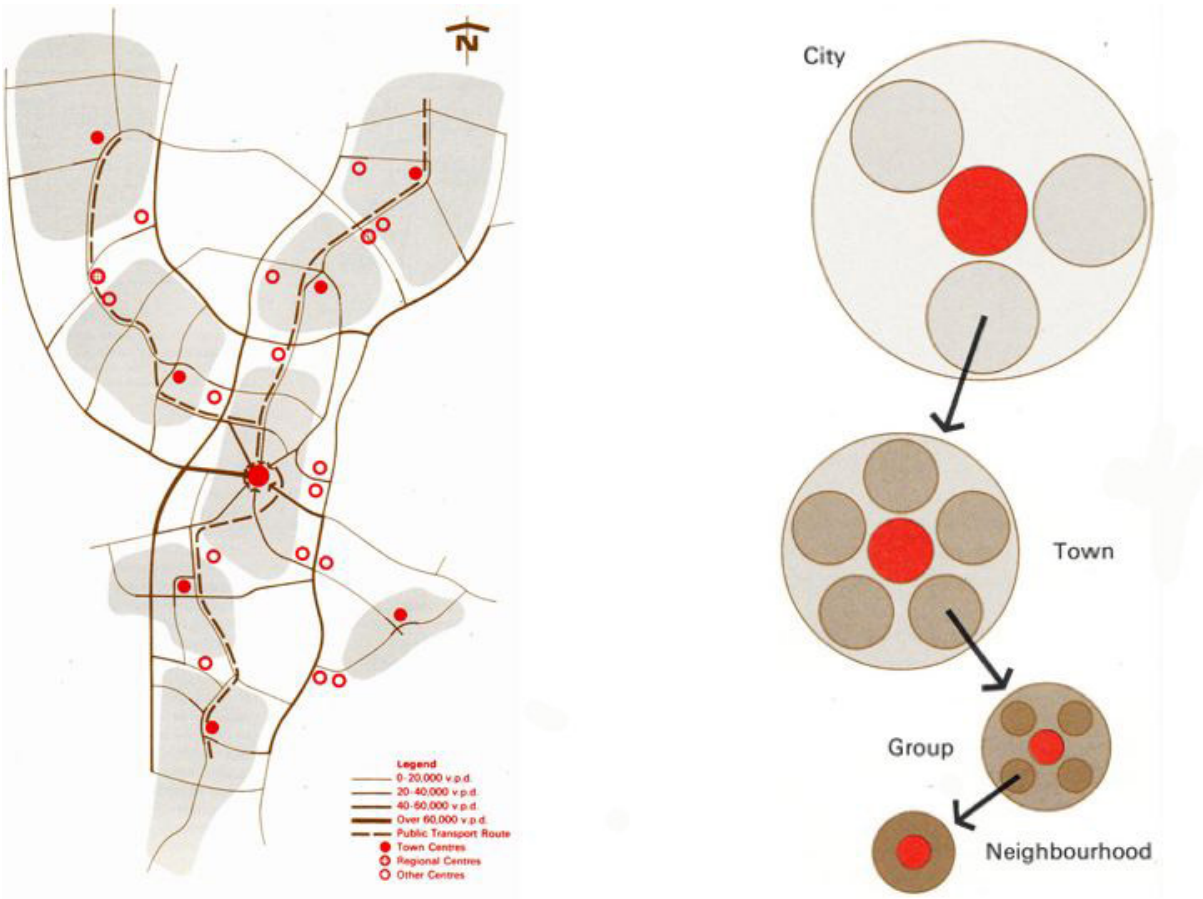
- Placing particular emphasis on the central zones of the city including the Parliamentary Triangle and Civic.
- Preserving the open character of the city by limiting the extent of the existing districts and forming new settlements in the valleys between the main hills.
- Establishing new towns, with populations of between 60,000 to 100,000 people, and having many of the attributes of independent cities with substantial employment centres, shopping and service industries.
- Each new town would comprise of ten or more neighbourhoods each with a population of between 4,000 and 5,000 people, sufficient to support a primary school and local shops.
- A system of arterial roads located on the periphery of the towns in the parkland reservations surrounding the residential areas to allow for easy inter-district movement.

The fundamental intentions were to preserve the essential characteristics of the central areas of Canberra, disperse the employment, residential and shopping facilities in new towns to lessen traffic congestion and journeys to work, to preserve the hills and open spaces around the city and avoid the adverse consequences of urban sprawl (NCDC 1965).

Further studies commissioned by the NCDC in the mid-1960s examined six development and transport options consisting of different arrangements of towns each with a population of 50,000 to 150,000 people. The conclusions of the study provided the basis for the development of a linear pattern to achieve a more efficient transport system. The strategic plan published in Tomorrow's Canberra in 1970 became known as the Y Plan because of its shape. The Y Plan also embodied several important planning principles:

- Major national uses would be located in the Central National Area.
- The new transport system would channel private vehicles to parkways on the periphery of urban districts and concentrate public transport travel between the districts onto a central spine linking the town centres.
- The hills and ridges within Canberra would be retained in their natural state to act as a backdrop and setting for the City and also as a means of separating and defining the towns (this was later to become known as the National Capital Open Space System).
- The National Capital would be one in which environmental standards would be high. (NCDC 1970).

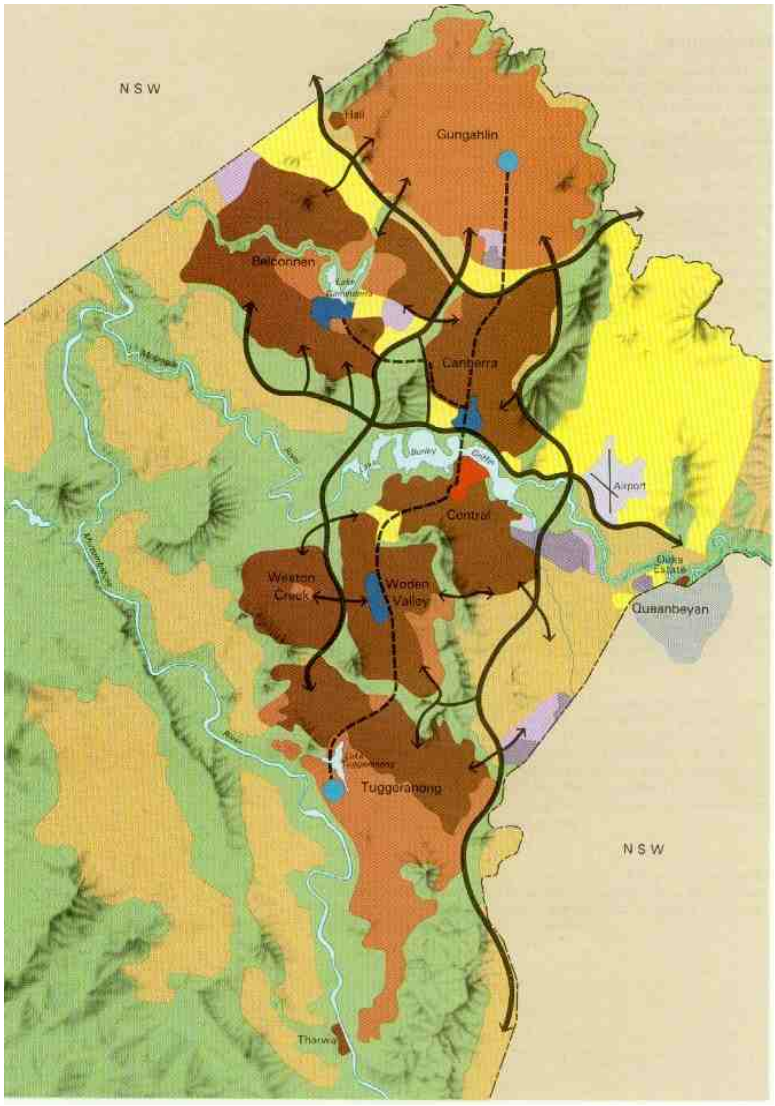
Figure 1 Tomorrow's Canberra: The Y plan and hierarchical approach to centre planning



By the late 1970s concerns were being raised that for a city of 250,000 people, the travel distances are much greater than for comparable cities elsewhere, that the densities are too low and should be increased, and that there should be a single, large commercial centre. To address these concerns, a Discussion Paper was published in 1980 and two options were canvassed for evaluation: a concentrated plan and a dispersed plan. The concentrated plan option assessed the likely impact of a significant level of employment and retail floor space being concentrated in the central area and in the then established town centres of Woden and Belconnen. The dispersed plan option assessed the likely impact of continued dispersal of employment and retail opportunities along the lines envisaged in the Y Plan.

The Metropolitan Canberra Policy Plan/Development Plan, published in 1984 (Figure 1), confirmed the basic principles and structure of the Y Plan as a continuing and valid basis for guiding Canberra's metropolitan growth for a population of 400,000 people (NCDC 1984:iv). The most significant planning principle embodied in the 1984 Plan is the National Capital Open Space System. The hills and ridges within and around the urban area of Canberra are to be kept free of urban development, both to act as a backdrop and setting for the city as well as providing a means of separating and defining the towns (NCDC 1984:173). This functional role of determining the urban form and structure of self-contained towns is the most important value of the National Capital Open Space System.

Figure 2 The Metropolitan Policy Plan/Development Plan - 1984



Source: Collection: National Capital Authority Library & Information Service

The significant features of Canberra's fabric thus include:

- the National Triangle and Parliamentary Zone, with the Land Axis vista stretching between Parliament House and the Australian War Memorial against the backdrop of Mount Ainslie and the main approach roads and grand tree-lined avenues identified in Griffin's plan..
- The water axis in Lake Burley Griffin and its landscaped foreshores.
- The National Capital Open Space System including Hills, Rivers and Buffer Spaces, the River Corridors, and the Mountains and Bushlands; forming a continuum of natural and park-like settings, preserving a visual and symbolic backdrop for the National Capital.
- The broad scale metropolitan structure (beyond Central Canberra) based on the principle of discrete and decentralised new towns (Woden/Weston, Belconnen, Tuggeranong and Gungahlin) each with its own town centre and relatively self-contained services, as proposed in the 1984 Metropolitan Plan; with particular emphasis on preserving the open

character of the city by limiting the extent of the existing districts and forming new settlements in the valleys between the main hills.

- Extant elements of the 1918 Griffin Plan and the 1925 Gazetted Plan which have set the framework for Central Canberra, including the avenues, open spaces, structures, axial lines, the subdivision geometries and the early garden suburbs and other prototypical suburbs in Central Canberra by subsequent planning agencies up to 1984.
- The building height restrictions in Central Canberra, limiting building heights to below the base of the flag pole on Parliament House at the apex of the Parliamentary Triangle, to preserve the primacy of the major public buildings and a dominant landscape horizon, and giving Canberra a distinct identity as a horizontal city subservient to the landscape.
- The peripheral parkways dispersing the peak traffic around the new towns, in scenic landscape corridors, rather than through the urban neighbourhoods.
- The river corridors and landscape views of the Brindabellas that form the backdrop—or in Griffin's words, the 'amphitheatre'-- to the city when viewed from the hill tops in the National Capital Open Space System around Central Canberra.

Summary

There is no other place in Australia with similar urban design characteristics. No other city in Australia has been designed to a comprehensive city plan, laid out on a green-field site at a metropolitan scale, and developed with the consistency and attention to detail as the plan of Canberra.

Some Australian cities, for example, have fine parks and boulevards, some have distinguished civic centres and ceremonial spaces, and there are good examples of early twentieth century garden suburbs in other Australian cities; but such elements are usually sporadic episodes in the urban fabric. Canberra combines all of these and more on a scale unparalleled in the nation. No other city in Australia possesses such a systematic approach to landscape as the primary generator of urban form, nor such a grandly scaled neo-classical design (i.e. the Griffin plan) laid out in the Australian 'bush'.

In summary Canberra's significant planning principles are:

- A city blended into the landscape with a significant open space system shaping and forming a backdrop to the city.
- A system of towns and town centres for a mix of activities and uses with ample capacity for denser uses without detracting from the city's urban structure.
- Capacity for a central public transport system with reverse loading during peak periods.
- A system of arterial roads located on the periphery of the towns in the parkland reservations surrounding the residential areas to allow for easy inter-district movement.
- Building height restrictions which will mean that future developments will be kept to a human scale and respect the city's role as the national capital.

However, the most significant challenges the city faces include:

- Retention of the dispersed town centres with their employment and retail centres and the linear structure of the city providing that all-important reverse loading on a (yet to be built) central public transport system.
- Retention of the National Capital Open Space System as an integral part of the city's setting in the landscape and backdrop for the national capital.
- Retention of the building height restrictions, especially in Inner Canberra against a push for much taller buildings.
- Continued opposition from residents and others to a more coordinated and concerted approach to absorbing the city's population growth within the city's existing urban fabric/structure.
- Managing the landscape, especially the city's urban forest. This is already emerging as an issue as the prolonged drought has accelerated the loss of a significant number of older trees as they were approaching the end of their life anyway. The challenge is replacing the trees with like species when perhaps some species were inappropriate for the location in which they were planted.

This adaptability of this urban form to create a more sustainable city will be tested and analysed through this Urban Principles work. As well as historic planning strategies it is important to understand current planning polices and legislation and the impact these have on creating a more compact and sustainable city

2.1.4 Relevant ACT Planning Policies

The current planning documents of relevance to this work are the Spatial Plan and Territory Plan which are prepared and implemented under the *Planning and Development Act 2007* (ACT).

The object of this Act is to provide a planning and land system that contributes to the orderly and sustainable development of the ACT:

a) consistent with the social, environmental and economic aspirations of the people of the ACT; and
b) in accordance with sound financial principles.

The Act defines sustainable development as the effective integration of social, economic and environmental considerations in decision-making processes, achievable through implementation of the following principles:

a) the precautionary principle;
b) the inter-generational equity principle;
c) conservation of biological diversity and ecological integrity;
d) appropriate valuation and pricing of environmental resources.

The Planning and Development Act (Ch 6) also provides for the preparation and articulation of a long term strategy for the ACT and this strategy comprises the **Canberra Spatial Plan** and **Sustainable Transport Plan** as illustrated in the figure below.

Figure 3 ACT Planning Strategy

The planning strategy must be considered when varying the statement of strategic directions in the Territory Plan and when preparing variations to the Territory Plan. It is not applicable to decisions on development applications or compliance actions.

The Canberra Spatial Plan is a long term visionary plan and is the territory's key strategic planning document that provides guidance to developing and managing growth for the next 30 years. Its focus is on spatial planning, and it has been developed with input from the community and detailed analysis of factors affecting development such as where future housing and employment should be located, and what are the features that should be protected. It also provides some targets and indicators to measure performance.

The Territory Plan is the key statutory planning document in the ACT. The purpose of the Territory Plan is to manage land use change and development in a manner consistent with strategic directions set by the ACT Government, Legislative Assembly and the community. It must not be inconsistent with the National Capital Plan.

The Territory Plan includes broad principles and policies that guide development. The Plan's principles for sustainable development follow a 'triple bottom line' approach with specific principles relating to environmental, economic and social sustainability.

The Canberra **Sustainable Transport Plan** sets targets for trip types including walking, cycling and public transport. It also recommends increased housing densities in key areas to support increases in non vehicle mode share as well as containment of jobs in centres to reduce vehicle kilometres travelled.

Overarching the Spatial Plan is the **National Capital Plan** administered through the Federal Agency the National Capital Authority (NCA). It provides a general policy framework for land use and planning in the Territory. More specifically it guides the planning, design and development of areas of the Territory that have been identified as having national capital importance. Any planning decision in Canberra must also have regard of the National Capital Plan.

There are a range of other relevant ACT Government policies that have been reviewed through the analysis of this work. The key documents[3] are:

- **The Canberra Plan** is an overarching plan for the future of Canberra and identifies priority actions.
- The **Social Plan** identifies issues of importance to Canberra residents including access to services, creating an inclusive society and health and well being.
- **Weathering the Change** is the Government's Climate Change Strategy with city wide actions to reduce greenhouse gas emissions.
- The **Land Release Program** sets out the Government's intention for land release in new areas and also infill areas.
- **Affordable Housing Strategy** details actions to address the concerns about the shortage of affordable housing in Canberra.
- **No Waste by 2010 Waste Management Strategy** details sustainable practices for the management of Canberra's waste
- **Water Resources Management Strategy** takes a catchment approach to managing storm water, water supply and waste water

It is recognised that this is not the complete list of all of the documents but rather provides a snapshot of the key policies and indicates that there are many complementary policies in Canberra that will impact on the sustainability performance of the Spatial Plan and Territory Plan. These policies are also administered by various Government agencies highlighting that a co-ordinated effort is required to implement sustainability measures**.**

Summary

The Spatial Plan and Territory Plan have a suitable framework in place to incorporate revised and more focussed sustainability principles and targets. However it needs to be recognised that these two Plans operate in the context of many other relevant Government policy documents which will also influence planning decisions. In measuring performance of targets and indicators the influence of these other policies needs to be considered as well as the inherent issues with different jurisdictions administering these policies.

2.1.5 Best Practice from Elsewhere

This section provides an overview of some of the sustainability principles, targets and indicators developed elsewhere is Australia as examples of the range of indictors and how these are being used. Examples have been chosen based on their relevance to spatial or land use planning.

Sydney 2030 (City of Sydney)

Sustainability is a central focus of the City of Sydney's strategic plan. The guiding principles cover economic, social and environmental sustainability. Targets have also been developed although they sit somewhat independently from the principles. The Sydney 2030 principles and targets are shown in Figure 5.

Figure 4 Sydney 2030 Principle and Targets

PRINCIPLES	TARGETS
GLOBALLY COMPETITIVE **The City will contribute to maintaining Sydney's position as the premium destination in Australia for global and national investment, high quality connectivity and high quality employment. The City Centre and its Villages will be destinations of choice for international and national visitors, major events and conferences.** **LIVEABLE** **The City of Sydney will balance increased numbers of residents and employees with improved access to high quality amenities, an attractive and safe public domain, design excellence in the built environment, an active street life and cultural vitality. These aspects will be foundations for both its urban villages and a strong economy.** **CULTURALLY RICH** **The city will continue to be a leading cultural centre and an international cultural leader, fostering the development of and participation in cultural activities, events and performances, by and for its diverse resident, worker and visitor communities.** **INNOVATIVE, EDUCATED AND SKILLED** **The City will be a world leader for knowledge and information sharing, creativity and skills development by fostering a culture of enterprise, lifelong learning and achievement.** **ENVIRONMENTAL LEADER** **The City will minimise its energy and water use, its waste generation and its air quality impact through the City of Sydney's own activities and by working with other stakeholders. The City of Sydney will plan for the future impacts of climate change.**	TARGET 1 By 2030, the City will reduce greenhouse gas emissions by 50 per cent compared to 1990 levels, and by 70 per cent compared to 1990 levels by 2050. TARGET 2 By 2030, the City will have capacity to meet up to 100 per cent of electricity demand by local electricity generation and 10 per cent of water supply by local water capture. TARGET 3 By 2030, there will be at least 138,000 dwellings, 48,000 additional dwellings in the City for increased diversity of household types, including a greater share of families. TARGET 4 By 2030, 7.5 per cent of all City housing will be social housing, and 7.5 per cent will be affordable housing, delivered by not-for-profit or other providers. TARGET 5 By 2030, the City will contain at least 465,000 jobs including 97,000 additional jobs with an increased share in finance, advanced business services, education, creative industries and tourism sectors.

South East Queensland

In Queensland, a framework for ecologically sustainable decision-making has been used to inform principles and polices of the SEQ Regional Plan, the region's recently finalised strategic and statutory plan for management growth to 2031. The framework commits to:

- integrated and long-term decision making— incorporating long- and short-term environmental, economic and social considerations into decision-making
- intergenerational equity—ensuring the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations
- intra-generational equity— ensuring a fair share of resources and opportunity among present generations
- conserving biological diversity and ecological integrity—protecting the variety of all life forms, their genetic diversity and the ecosystem of which they form a part, recognising the various services they provide to humans as well as their intrinsic value
- internalising environmental costs— ensuring the true costs and life-cycle costs (incurred from when inputs are produced through to waste disposal) of protecting and restoring environmental damage are reflected in
- the price of a product or service
- engaged governance—ensuring broad community involvement in decisions and actions that affect people.

Targets relevant to the SEQ Regional Plan are set out in more detailed planning documents. For example:

- The draft South East Queensland Water Strategy aims to reduce the use of grid water by about 24 per cent compared with pre-drought trends. The average residential consumption target will be 230 litres per person per day or less.
- Toward Q2: Tomorrow's Queensland establishes targets for environment and lifestyle, economy, education and skills, health and community. It makes commitments to cut Queenslanders' carbon footprint by one third with reduced car and electricity use and to protect 50% more land for nature conservation and public recreation.

Melbourne

Melbourne 2030 – planning for sustainable growth is a 30-year plan to manage growth and change across metropolitan Melbourne and the surrounding region. A key principle of the strategy is that, where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent the threat from being realised.

Figure 5 Melbourne 2030 Principles

Innovation

Innovation and the creativity, cultural vitality, intellectual capacity and entrepreneurial skills that give rise to it are essential for all forms of growth and development. The Government is committed to finding new answers and approaches.

Adaptability

People can and must take into account past trends and indications of future directions. The Government is determined to plan for change and to be adaptable when faced with the unexpected.

Inclusiveness

The Government will consider the differing needs, values and aspirations of all individuals and groups in society while managing urban and regional growth and change, carrying out the processes of planning at all levels, and implementing Melbourne 2030.

Equity

The Government is committed to ensuring fairer access to the benefits of growth and change. All Victorians will benefit because, in providing social, economic and environmental infrastructure, we will focus on areas of need and current inequality. To ensure more equitable access to that infrastructure, the Government acknowledges the right of all people to be safe, and to feel safe.

Leadership

Leadership at individual, community and industry level is vital — to manage the rapid change that many communities are experiencing, and to achieve the desired outcome for metropolitan Melbourne and the surrounding region. Communities have an enormous capacity to influence their own destiny, but there is also an essential role for government. The Government is committed to providing direction while encouraging and supporting leadership at all levels.

Partnership

People operate in a complex urban system where no one level of government or organisation has dominance in decision-making. The Government is committed to working in a collaborative manner with local government, non-government organisations, the private sector and the community.

Summary

Different jurisdictions in the major cities in Australia have identified key principles and quantified targets and indicators to manage growth in a sustainable way.

2.2 Overview of Principles and Targets

This section articulates principles and targets and outlines underpinning issues.
Principles articulate high level strategic directions and provide a pathway through the planning system to guide implementation of targets. This also allows for the monitoring of performance and adjustment to the targets as required.

In developing targets for the whole city it is understood that that they will be applied to ensure a unique design response at all levels of planning. Every area, district, suburb and site has a role and relationship to the city's strategic context, together with the appreciation of individual characteristics of form.

Targets should to be measurable, verifiable and reportable and applied to the various levels of planning. By committing to targets, there should also be a commitment to an integrated evidence-based decision making system.

In addition, targets should be limited to the key performance indicators of a particular policy area and easily understood by the public. For example, in relation to housing it could be the number of dwelling sites or completed dwellings in the existing and new urban areas each year.

Currently the scope of the Territory Plan Statement of Strategic Directions is comprehensive though it does not provide a pathway for the achievement of the objectives. The Spatial Plan does have some targets and these have been incorporated where possible into this review, but as also identified by others (CSIRO: Scoping Sustainability Appraisal Methods) the Spatial Plan does not provide an implementation framework for the targets.

Furthermore, findings from the Sustainable Future workshops identified that whilst there were around 100 targets in the Spatial Plan most of these were unworkable and could not be measured. Baseline and rigorous targets were required to improve sustainability performance.

In the review of the planning documents, the principles and targets in the Spatial Plan have the most direct application and relevance for the statutory planning system, as well as being more current than some of the other policies. These principles are generally articulated as follows:

- Containing growth
- Residential intensification
- Centralising new residential areas
- Locating employment
- Protecting biodiversity
- Providing Good travel connections
- Sustainable growth of the region

In other documents reviewed, the principles are more concerned with service delivery or directions for the Territory Government, for example housing is about providing housing services. In other policy documents the principles are "process" focused, or do not relate to an issue that can be implemented through the land use planning system.

It is also important to understand the role that the Territory Plan has in delivering sustainable outcomes. The Plan has effect in two ways:

- it gives statutory effect to Structure plans and Precinct Codes prepared for specific areas;
- it has effect through development assessment and approval.

Although these are important and influential functions, the sustainability of the Territory will not be delivered through the Territory Plan alone. For this reason, it is important to recognise the limitations of the Plan, what it can and can't achieve, and what supporting policies or legislation it relies on. Most importantly, the relative effectiveness of addressing a particular issue through the planning system, rather than by another means, needs to be questioned. For example, the relative effectiveness of requiring minimum solar access to lots, as a way of reducing greenhouse gas emissions, relative to other possible measures should be assessed. In short, consideration must be given to whether the planning system is the most effective, efficient and equitable means of addressing an issue.

2.3 Explanation of Principles and Targets

In reviewing the current documents and in particular the relevant planning documents, six principles have been developed based mainly around the Spatial Plan objectives. Targets and indicators are also proposed.

The six principles are based on those in the Spatial Plan but have been redefined and re-aligned to fit better with an integrated Environmental Management System approach.

The six principles are:

1. **Liveability** – Create and maintain a diverse community.
2. **Economic Vitality** – Sustain employment opportunities.
3. **Accessibility** – Provide safe, convenient and attractive access to recreational, cultural, educational and employment destinations.
4. **Identity** – maintain a distinctive sense of place.
5. **Environmental Responsibility** – Protecting the natural environment.
6. **Accountability** – Ensure ownership of sustainability measures through good practice governance.

In developing and describing the principles, targets and indicators the following approach was adopted:

Overview of the principle
A brief description of the main intention of each principle is provided.

Analysis of issues that contribute/affect or provide for the achievement of the principle and identification of implications and inherent tensions
This analysis allows for a discussion of current policy tensions and the challenges that the ACT faces in relation to the particular policy area and trends.

Incorporation of relevant information from the Sustainable Future Workshop findings report
Information from the Sustainable Futures workshops has been incorporated into the discussion on the Principles. Interestingly the ideas from the workshops covered all of the Principles, though there was not a strong focus on economic vitality. Some of the ideas from the workshops cannot be implemented through the planning system, for example investigating barriers to the use and development of alternative housing models.

Relevance of the Territory Plan to the Principle
The discussion on the Principle also covers where the principles may be applicable within the Territory Plan.

Relevant other documents
If the role of the planning system has been clearly defined in relation to a particular issue, and is not considered to be the most effective means of addressing the issue, then suggestions for where the issues could or should be addressed are made. For example, the provision of social housing through inclusionary zoning may not be the most effective means, while a requirement for a mix of housing may fit well in the planning system.

The planning system may also rely on other processes or policies, such as community engagement through participatory urban design and planning processes for existing areas, to be effective.

Development of Targets and Indicators
Targets have been developed for each principle. The number of targets has been kept to a minimum and under some principles such as Identity no target is provided due to the difficulty in quantifying this principle. Generally the targets chosen are from existing ACT Government commitments.

A list of indicators has also been developed also with reference to existing policies.

The Principles are articulated in the next section, based on the discussion points outlined above.

2.4 Principles and Targets

Principle 1: Liveability - create and maintain a diverse community

This principle is primarily about the local neighbourhood, with a focus on creating liveable communities, housing diversity, adaptability and capacity for change.

Diversity facilitates the creation of communities that are inclusive, are desirable places to live and cater for all people by including a range of factors such as:

- providing local services appropriate to the needs of the community
- facilitating community involvement with decisions affecting the local area and region
- providing opportunities for non car based travel to access local services and further destinations such as work places
- having diversity in building types, tenures and sizes to achieve social mix
- providing opportunities for social interaction
- delivering quality urban design
- providing a mix of public, semi-public and private spaces to support diverse activities
- providing a public realm that encourages stewardship and community pride; public spaces that are appropriately sized and connected to share facilities
- having options for the development of community gardens
- providing healthy and green ways for moving through the community.
- supporting residential amenity privacy, safety and security
- population in existing areas is decreasing, local service businesses are declining through lack of patronage, schools are closing.

Whilst some of these factors relate to the design of greenfield areas they can also be applied to areas within the existing urban fabric. Currently many suburbs are undergoing renewal through generational change but the housing stock has remained the same even though households are getting smaller and many residents no longer want to maintain large blocks of land. However there is seen to be a tension between developing alternative housing types whilst maintaining the character and feel of the area.

The Sustainable Future workshop findings also identified the tension behind community support for a more compact urban form resulting in less development in greenfield areas. The support for densification comes with some important qualifications such as density needs to be 'designed in' to make a significant contribution to social outcomes. Well designed redevelopment has the potential to support existing services and amenities in areas experiencing population decline. Increasing the intensity and mix of activities in targeted areas such as Town Centres and transport corridors was identified as vital to creating a more flexible density policy and a priority to creating a more sustainable urban structure.

There is also interest in having more affordable housing as evidenced through the ACT Government's Affordable Housing Strategy. A range of housing options delivered through the Territory Plan can assist such as, – variety of lot sizes, providing for a mixture of densities, and

providing a choice of housing. Adaptation of existing buildings (e.g. older housing) and the identification of surplus government land must be considered in order to increase the availability of appropriate housing and house sites for a wide range of demographic groups. This will also contribute to the increase in density and better use of existing infrastructure. Dwelling design should consider future adaptive use, for example, a dwelling could be initially designed to cater for a family, but be readily adaptable as a group house or supported aged care (granny flat) with minimum changes.

The one target that has been included for liveability has been sourced from the Spatial Plan:

- **50:50 split between greenfield and existing areas for new housing**[4]

A range of indicators have also been developed and these can be modified for particular areas:

- % of affordable housing in an area
- 50% dwellings within 400 metres of local services
- Sites for 750 new dwellings in areas within 15km of city centre per year for the next 30 years (from Spatial Plan).

The Territory Plan plays a significant role in the delivery of Liveability objectives for example this how it may implement population and dwelling types. It is recognised that there are a range of other initiatives that will support liveability principles such as renewal strategies for infill development, affordable housing strategies, land release strategy and design guidelines.

Figure 6 How Liveability issues can be addressed in the Territory Plan

	Housing **Target: 50% Greenfield and 50% infill development**	**Community Services** **Indicator: 50% dwellings within 400 metres of local services**
Structure Plan	Defines the population capacity for an existing or new area as a share of the city wide allocation of growth – identifies opportunities for housing mix	Identifies the number and broad location of higher order community services required to service the population
Concept Plan	Defines population capacity and mix of dwelling types and broad allocation of areas	Identifies sites for regional and local services
Estate Development Plan	Defines locations and numbers of different dwellings	Locates community services in appropriately considering issues such as access and adjoining uses.
Development Assessment	Plans ensure amenity, orientation and detailed designs are considered.	Provides detailed plans for community services including buildings

Principle 2: Economic Vitality – Sustain employment opportunities

Sustainable employment requires a match between the type and location of jobs and resident workers. This means there must be diversity in job opportunities in each area. Employment location has been a major consideration in the planning of the City although recent developments such as at the airport and in industrial areas have tested the existing centres hierarchy.

A challenge for local businesses is that the demographics in many areas are changing to the ageing of the population and many local businesses are declining through lack of patronage.

In short conventional land use planning does not always adequately address economic development or how these centres could become more diverse mixed use centres, including with housing.

New approaches to meet unforeseen changes (e.g. climate change, peak oil) and the needs of future generations (build resilience) are needed. Such approaches should be focussed on minimising redundancy and maximising adaptability. Town centres, service areas, commercial centres should be able to intensify, expand the range of activity and contract in response to changes in demand and local, national and international circumstances.

Additionally, attention should be given to encouraging the co-location of employment and housing where possible, while recognising the need for mechanisms to avoid the displacement of essential lower land value activities by higher land value activities.

As set out in the Canberra Spatial Plan, Civic and town centres will be the focus of employment growth, with corridors of employment being reinforced by clustering at activity nodes. All employment centres should be easily accessible by public transport. This is best achieved by clustering activities in centralised locations and corridors.

However, implementation of this policy has relied primarily on conventional 'predict demand and supply land' land use planning. This tends to be focussed on short term needs and does not take into account changes in business and retail formats that have not occurred in the past, nor anticipate new modes of living and working that may emerge in the future.

There will be three major employment corridors: an east-west corridor of activity containing major education institutions, health and sporting facilities and key office employment locations; a primary north-south corridor characterised by a series of well connected nodes; and a second north-south corridor to accommodate the growth of industrial, broadacre commercial, tourism, recreation and transport related activities when additional land is required.

Two targets have been identified as being suitable for use in the Economic Vitality Principle though the scope of this work has not allowed quantification of these targets:

- **Jobs growth quantified and distributed spatially.**

- **Land Requirements and timeframes including office space, retailing, industrial and commercial and related to the desired distribution of jobs.**

A range of indicators has also been developed and these can be adapted for particular locations:

- Targets set for each centre and monitored over time
- Each of the activity nodes to accommodate no more than 5-10% of total employment in the ACT to ensure primacy of Civic and regional centres
- % households within 30 minutes walking distance of centres.

There are a range of ways economic vitality can be addressed such as through the land release program and infrastructure development program; and an example of how it could be addressed through the Territory Plan is included in Figure 8.

Figure 7: How Economic Vitality issues can be addressed in the Territory Plan

	Employment **Target: Jobs growth quantified and distributed spatially**
Structure Plan	Identifies the share of jobs from a city wide allocation and identifies broad areas for allocating the jobs (mixed use, precinct, home based) including associated services (transport)
Concept Plan	Refines the location for employment opportunities and types of employment considering broader objectives
Estate Development Plan	Provides detailed plans for location of employment and associated access.
Development Assessment	Plans ensure suitable access, amenity, frontages etc

Principle 3: Accessibility – Provide safe, convenient and attractive access to recreational, cultural, educational and employment destinations.

A shift in focus towards strengthening the primary relationship between people and the places in which they live and work is essential to achieving a compact city. Accessibility is also important to achieve social connectedness especially for people who do not have access to car based transport. Canberra's low density urban structure and form promotes car dependence and makes efficient public transport especially work based travel, more difficult.

Improved accessibility can be achieved either by improving transportation, locating the facility closer or locating more people near established services. Accessibility requires consideration of the spatial distribution of services and facilities as well as the modes of transport which connect people

to these services and facilities. In other words, land use and transport are interrelated and mutually supportive. Thus, they need to be planned for and delivered concurrently.

The need for a fast, efficient and attractive public transport system was highlighted in every Sustainable Future workshop. However, improvements in services and public infrastructure without a corresponding increase in density will not provide the conditions necessary for sustainable communities. Improvements such as higher quality and more frequent public transport and maintenance of local services will be a necessary condition for higher density development.

The link between land use planning and transport is circular requiring continual support by both aspects of planning to ensure a more compact and efficient urban structure and form. Reflecting the inextricable links between transport and land use planning, the Sustainable Transport Action Plan 2010–2016 will include strategies relating to public transport, parking, and cycling and walking.

Priority needs to be re-directed towards public transport, walking and cycling and away from private car use. For this reason the parts of the planning codes that determine car parking provision, who provides it and in what form and at what rate, the design speeds of streets and roads, and specific infrastructure that supports sustainable transport modes, such as bicycle storage and change facilities, pedestrian convenience, safety and amenity need to addressed.

Services and facilities should be accessible to all segments of the community with particular attention given to those who are most vulnerable. This may require specific types of facilities or special transport services in some areas.

Places should be designed to allow flexibility so they can adapt to changing needs of the community accessing facilities over time. Also, permeable site design should be adopted and linkages from place to place established.

There may also be opportunities to increase housing density in established areas along transport corridors to better utilise existing connections.

The target for Accessibility has been drawn from the Sustainable Transport Plan:

- **By 2026 percentage of trips targets (journey to work) are:**

  Walking 7%
  Cycling 7%
  Public Transport 16%.[5]

A range of indicators have been developed:

- Vehicle kms travelled per person
- Residential areas within 400 m of public transport
- No more than 20% of the developable footprint area for surface car parking
- Ratio of employment containment on sub regions.

Promoting accessibility can be undertaken by the planning and provision of bikeways, open space corridors for walking and car parking policies; an example of how this may be applied through the Territory Plan is provided below:

Figure 8 How Accessibility can be addressed in the Territory Plan

	Accessibility **Target: By 2026 percentage of trips targets are:** **Walking 7%** **Cycling 7%** **Public Transport 16%6**
Structure Plan	Identifies major access ways (public transport, road and open space) and links to adjoining areas
Concept Plan	Refines location of major pedestrian, cycleways and roads (shared and non shared) to ensure connectivity and access to local services.
Estate Development Plan	Considers safety, visibility and connections at the local scale to ensure compliance with standards.
Development Assessment	Ensures facilities are provided for cyclists in commercial buildings

Principle 4: Identity – Maintain a unique sense of place

There are a number of aspects of the urban environment which shape the identity of Canberra as the bush capital. These include its regional physical setting and design of the public and private domain.

Preserving and enhancing identify for Canberra residents was an important message from the Sustainable Future workshops. The challenge is to provide a planning policy that identifies, retains and extends these values, through the way it engages with citizens and through the resulting city fabric. Hence creating and maintaining public spaces, especially in inner urban areas becomes highly important as they need to meet various human needs (ecological, recreational, physiological, emotional, socio-cultural and spiritual).

Public art, furniture and urban installations have a role in adding character and utility to urban spaces, contributing to a sense of place and adding vitality to neighbourhoods and centres. The importance of improved quality and use of open space should be a condition of accepting higher urban densities in established areas.

In order to maintain its unique sense of place, Canberra must plan to protect and improve all of the elements of the landscape; bushland, vegetated hills, cultural plantings, streetscape, open space systems and built cultural heritage. The natural heritage should be embraced and extended into the urban fabric.

The landscape plan has historical value and has undergone signification change with recent removal of older trees due to the enduring drought. New vegetation selections and landscape plans need to reconcile historical significance as well as native drought resistant vegetation, and the environmental services that a created landscape can provide.

However, it is also important to recognise that the city needs adapt to change whilst maintaining the essential characteristics of both "bush capital" and "garden city".

As Canberra undergoes change and renewal, identity will be focussed on:

> **Preserving identity** in areas that will remain the same and will require upkeep and enhancement of the built form and open space.
>
> **Creating new identity** in the greenfield areas of Canberra where there are no existing communities. Here the identity will be shaped through the newly created built form, roads, street plantings and open space.
>
> **Changing identity** in areas undergoing renewal requiring identification of the characteristics of an area important to residents and ensuring these are incorporated or re-interpreted with new development.

The benefits of Canberra's landscape character and extent of urban forest contribute to its liveability but also its sustainable performance. This is an area Canberra has a significant advantage and opportunities compared to other cities; urban landscape supporting biodiversity, sequestration of carbon; organic waste disposal, food production, regulating local and micro climate, purifying urban water and air, wildlife habitat, alleviating flood and managing water retention. There are significant ecological services that can be performed by Canberra's urban environment while contributing to sense of place and character. Quantification and assessment of the effectiveness of these aspects of the landscape needs to be integrated into the overall planning framework to inform decisions about the extent, species selection and character of the landscape desired.

In addition there is great value placed on the intangible qualities, such as feeling connected in the community or attempting to live 'lightly'. These are the values that make lives meaningful and important. There is a need in some areas of the community for the need to rediscover or create a more spiritual sense of being, and way of relating to the land we live on, that can be supported by spending time in nature.

The challenge is to provide a planning policy that identifies, retains and extends these values, through the way it engages with citizens and through the resulting city fabric. Hence creating and maintaining public spaces, especially in inner urban areas becomes highly important as they need to meet various human needs (ecological, recreational, physiological, emotional, socio-cultural and spiritual).

Indigenous heritage and communities require greater consideration in the planning system, in particular an ethic of custodianship.

Measuring identity with one target is difficult and is a subjective quality based on a number of factors (including social connectedness, housing mix, variety of uses and accessibility to services). Defining the elements that are relevant to the Spatial Plan and Territory Plan will be critical to understanding the important elements of identity. There are also likely to be variations in what constitutes identity in different areas.

The target for Identity has been set at:

- **% satisfied with identity indicators through annual surveys.**

A range of indicators have been developed:

- % distinct precincts in the City
- % of streets and sites with canopy
- Ratio of landscaped area vs built area
- % of urban forests maintained.

Identity can be implemented through "Place making strategies", landscaping requirements and an example of how identity may be supported through the Territory Plan is below:

Figure 9 How Identity can be addressed in the Territory Plan

	Identity **Target: % satisfied with identity measures through surveys**
Structure Plan	Provides a broad vision for the community and describes the desired identity for built and natural form including areas that need protection.
Concept Plan	Incorporates identity elements into the design (landscape, character, preservation, public spaces)
Estate Development Plan	Provides more detail on built form elements
Development Assessment	Requires compliance with the built form character of the areas.

Principle 5: Environmental Responsibility - Protecting the natural environment

Environmental responsibility captures the idea of being responsible for an equitable level of consumption at global, state, regional and local levels – for example not using too much water to ensure there are environmental flows and minimising the amount of land that is used for urban development.

This principle is about acting responsibly locally but also being mindful that Canberra is part of a broader region and has a responsibility to be a "good neighbour" in the region.

On a positive note the Sustainable Future workshops found that Canberrans are willing to make changes to their lives. Many Canberrans surveyed have already taken steps to reduce energy use, such as by purchasing energy efficient appliances and reducing water consumption. The main reason given for these changes is having a personal responsibility to do the right thing. This indicates a preparedness to increase levels of sustainable behaviour in the community.

The principle of environmental sustainability should also take into account the likely effects of climate change, including the effects of increased temperatures and evaporation, reduced rainfall and seasonal shifts and base and peak energy demand.

Canberra's patterns of natural resource consumption (including land) and sinks (atmosphere, water, materials, food) have significant impacts on flora and fauna, human populations and areas outside its borders.

All material and energy flows needed to support the Territory are interrelated. Consequently it is important to develop an integrated framework for measuring, planning and monitoring environmental flows of energy, water, waste and materials in order to assess and mitigate their environmental impacts.

The target for Environmental Responsibility has been set at:

- **Carbon emissions peak by 2013 and neutral by 2060.**[7]

A range of indicators have been developed:

- **12% reduction in mains water by 2013 and 25% reduction by 2023**[8]
- **Level of nutrients and sediments no greater than from a well managed rural landscape**[9]
- **Intensity and volume of urban storm water flows same or less than pre-development flows**[10]
- **0% waste by 2010**[11]
- **% using solar energy or renewable energy.**

Environmental responsibility can be achieved by measures such as Water Sensitive Urban Design, storm-water harvesting and building standards and as an example through the Territory Plan as:

Figure 10 How Environmental Responsibility can be addressed in the Territory Plan

	Environmental Responsibility Target: Carbon emissions peak by 2013 and neutral by 2060
Structure Plan	Identifies the preferred urban form and structure including population and densities, location of services and jobs and targets for energy, water and waste
Concept Plan	Ensures appropriate housing mix and population densities achieved as well as local services and jobs. Incorporates water, energy (including solar) and waste strategies
Estate Development Plan	Provides detailed plans for water, energy and waste (ie stormwater retention.)
Development Assessment	Buildings consider energy use, solar, water and waste issues in design.

Principle 6: Accountability: Ensure ownership of sustainability measures through good governance

Community engagement and public participation should be addressed proactively and there is a need for a reorientation towards a genuine, meaningful engagement approach.

The protection of egalitarian and democratic values of the community will help foster a consciousness of sense and responsibility to community, place and self, retaining and developing the values that make Canberra special.

Strategic decision making should be supported by meaningful engagement with stakeholders.

All workshops from the Sustainable Future process concluded that community engagement and public participation must be addressed more proactively. The sense coming from the workshops was a need for a reorientation towards a genuine, meaningful engagement approach that tended to be defined as starting without already drafted plans or a predetermined outcome.

Also important from the workshops was the need to give attention to developing initiatives which encourage community interaction and stewardship of sustainability initiatives such as urban farms and interpretive signs to recognise and to care for ecosystems in the Territory.

During the development of strategies and their final articulation, the public interest should be presented in a way that is evidence based.

The frequency of recommendations in the Sustainable Future workshops about data needed to establish baselines and measure change, suggest a commitment to having a better understanding of past actions and their consequences. Workshop participants did not want to reject the past outright, rather they wanted a rigorous appraisal of past behaviour to inform future policy.

The progress of sustainability measures should be carefully monitored and the results communicated in a transparent manner. Where progress is made, this should be celebrated with the community.

The target for Accountability has been set at:

- **% of population participating in defined planning activities.**

A range of indicators have been developed:

- **% of public forums held each year**
- **% of targets and indicators that are met.**

Figure 11 How accountability can be addressed in the Territory Plan

	Accountability **Target: % of population participating in planning activities**
Structure Plan	Provides for public involvement at the broad and Spatial Plan level
Concept Plan	Provides for more detailed consultation say for example renewal areas
Estate Development Plan	Generally not provided for at this level of detail.
Development Assessment	If provided for in the Territory Plan, public consultation can occur on applications

Figure 12 Summary Table of Principles and Targets

PRINCIPLE	Key Planning Imperatives	Overview	Key Policy Initiatives	Targets	Range of Indicators to Measure
LIVEABILITY	A greater range of housing choice and affordability and choices of location for new dwellings is required, especially for the older population and to ensure adaptability of urban form and housing Renewal sites for housing infill offer potential but need focussed attention.	**Create and maintain a diverse community**	Urban design principles developed and incorporated within Territory Plan A strategy to be developed to focus on facilitating renewal areas Liveable and inclusive communities need to provide sufficient community services, open space, local services and jobs and public transport	50:50 split between greenfield and existing areas for new housing[12]	% of affordable housing 50% dwellings within 400 metres of local services 50% of new dwellings should be higher densities Sites for 750 new dwellings in areas within 15km of city centre per year for the next 30 years.
ECONOMIC VITALITY	Jobs should be contained in sub regions to minimise travel times. City centre and sub regional centres require attention to develop better outcomes.	**Sustain employment opportunities**	Retail and employment strategy developed with targets, location and timeframes	Jobs growth quantified and distributed spatially Land Requirements and timeframes including office pace, retailing, industrial and commercial	Targets set for each centre and monitored over time Each of the activity nodes to accommodate no more than 5-10% of total employment in the ACT % households within 30 minutes walking distance

PRINCIPLE	Key Planning Imperatives	Overview	Key Policy Initiatives	Targets	Range of Indicators to Measure
					of centres
ACCESSIBILITY	More intensification along corridors and within centres needed to support a viable public transport system. Non car based travel should be supported in new areas.	**Provide safe, convenient and attractive access to recreational, cultural, educational and employment destinations**	Incorporate the relevant aspects of the Sustainable Transport Plan related to transport-land-use integration including Investigating the potential for residential Intensification along transport corridors and centres	By 2026 percentage of trips targets are: • Walking 7% • Cycling 7% • Public Transport 16%[13] (doubling current proportion of trips by non car)	Vehicle kms travelled per person Residential areas within 400 m of public transport No more than 20% of the developable footprint area for surface car parking Ratio of employment containment on sub regions
IDENTITY	The suburban character of older suburbs should be protected and new areas need to create their own sense of place. Community health and well being important and this needs to include spiritual connection, culture and indigenous heritage. Involve the residents	Maintain and create a distinctive sense of place; in some areas this may also mean changing the identity	Distinct places are created in new, changing and existing areas through built form, landscape, and urban design. Prepare identity measures relevant to the planning system (built form, housing mix, urban design, landscape) for preserving, creating new areas and areas undergoing change. Renewal and intensification of centres is undertaken with the residents.	% satisfied with identity measures through annual surveys (Note: this is difficult to quantify on a city wide basis)	% distinct precincts in the City % of streets and sites with canopy Ratio of landscaping area vs built area % of urban forests maintained

PRINCIPLE	Key Planning Imperatives	Overview	Key Policy Initiatives	Targets	Range of Indicators to Measure
	where required in planning decisions.				
ENVIRONMENTAL RESPONSIBILITY	Built environment needs to consider energy, water and waste in planning, construction and use. Climate change impacts should be factored in to planning.	**Protecting the natural environment**	Subdivision design needs to incorporate best practice - WSUD principles	Carbon emissions peak by 2013 and neutral by 2060[14] (60% of total emissions are from built envt including transport)	12% reduction in mains water by 2013 and 25% reduction by 2023[15] Level of nutrients and sediments no greater than from a well managed rural landscape[16] Intensity and volume of urban stormwater flows same or less than pre-development flows[17] 0% waste by 2010[18] % households using solar energy or renewable energy
ACCOUNTABILITY	The planning system should be able to report on progress and readjust strategy.	**Ensure ownership of sustainability measures through good practice governance**	Develop Sustainability Framework for monitoring, measuring and reporting on progress	% of population participating in planning activities	% of public forums held each year % of targets and measures that are met

[1] Sustainable Future Workshops: Executive Summary

[2] Sustainable Future workshop findings report

[3] Note that the web links to all of these documents are provided in the reference section

[4] Canberra Spatial Plan: Principles of the Canberra Spatial Plan – Containing Growth

[5] The Sustainable Transport Plan for the ACT (2004)

[6] The Sustainable Transport Plan for the ACT (2004)

[7] Think Water, Act Water 2004
[8] ibid

[9] Think Water, Act Water 2004
[10] Ibid

[11] No Waste by 2010 Waste Management Strategy

[12] Canberra Spatial Plan: Principles of the Canberra Spatial Plan – Containing Growth

[13] The Sustainable Transport Plan for the ACT (2004)

[14] Minister for the Environment, Climate Change and Water: Media Release 17th November 2009 http://www.chiefminister.act.gov.au/media.php?v=8873

[15] Think Water, Act Water 2004

[16] ibid

[17] ibid

[18] No Waste by 2010 Waste Management Strategy