



WSROC Future Directions Western Sydney 2030

Discussion Paper

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1 Introduction

This discussion paper aims to help the leaders and champions of Western Sydney to think “beyond the horizon” to a future rarely considered. It poses tough questions and asks its readers to face them and think through options for addressing them. The discussion paper is a precursor to an integrated planning process that will equip the state and the region to take appropriate actions to position Western Sydney for success in the future.

The purpose of this document is to ask questions and generate discussion. It forms the basis of the upcoming “Thought Leaders Workshop” which will influence the development of a “Future Directions Statement”. We invite your thoughts, ideas and challenges to the questions raised and encourage your contribution in formulating a desired future for the WSROC region.

This paper uses two definitions of Western Sydney: WSROC region and Western Sydney. The WSROC region is the area covered by the ten member Councils of WSROC. Western Sydney includes those ten Council as well as The Hills Shire, Camden, Campbelltown and Wollondilly, which are part of the larger geographical footprint.

1.1 Why a Future Directions Statement?

Cities across the world have an imperative to transform themselves to meet the challenges of the future. The challenges we all face require us to make big decisions about our cities as we enter a more resource-constrained world.

Decisions that go directly to the heart of the challenges include:

- How will we travel to jobs, services and employment?
- What will fuel our cars and transport and where will we source our energy?
- How do we maintain local character and foster community identity?
- How can we reverse declining health trends?
- Will we be able to maintain our current quality of life as the world population grows?
- How will we feed ourselves with less arable land than we have today?

Western Sydney of today is disadvantaged in terms of transport, jobs, investment and community services. However, the world is not standing still. With a population of 1.96 million people¹ and home to more than half of Sydney’s growth, Western Sydney is at the frontline in responding to the challenges of the future.

How can Western Sydney stride ahead, rather than just play catch up?

¹ <http://www.westernsydney.nsw.gov.au/about-western-sydney/demographics/>

While much has been written about the infrastructure required to address disadvantage, the challenge for Western Sydney is to not simply catch up but to stride ahead. This paper starts to re-evaluate current needs through a ‘future lens’ in order to define and prioritise the changes needed to position Western Sydney as one of Australia’s leading city regions in 2030. This will establish a strong foundation for Western Sydney as it moves towards the mid century.

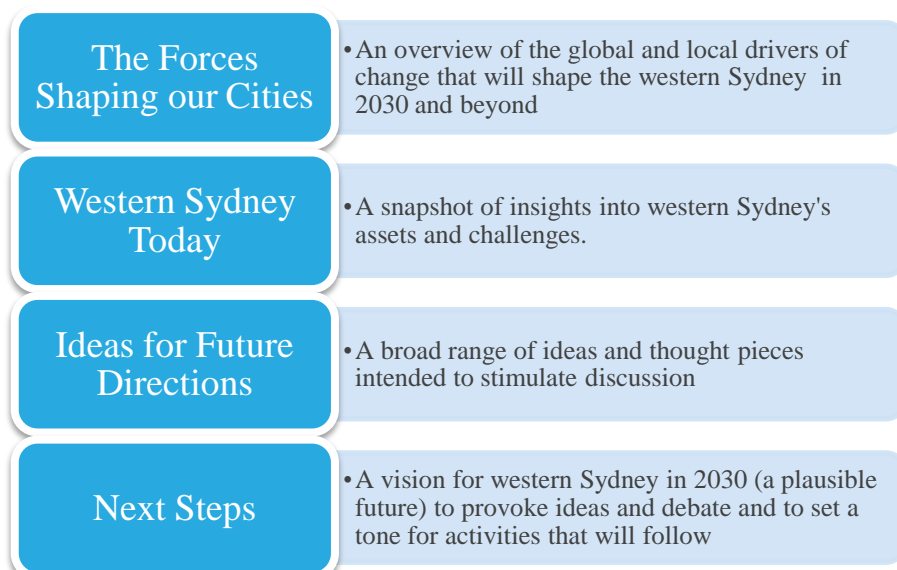
The Australian Government has recognised the contribution cities make to the economy of the nation and that the long term future of Australia depends on healthy and functional cities. ‘Our Cities Our Future’, outlines a national approach to urban development to create cities that are more productive, sustainable and liveable within a sound governance framework. These aspirations recognise the importance of city planning both in terms of productivity and economic reform, as well as sustainability and resource consumption.

The Future Directions study was commissioned by the Western Sydney Regional Organisation of Councils (WSROC) to establish a platform for a proposed strategic plan for the city-region of Western Sydney. In recognising the need for such a plan, WSROC is embracing the ‘Our Cities Our Future’ platform and guiding development of the WSROC region so it is productive, sustainable and liveable in 2030. This study also looks forward to 2050 to understand the future challenges that the community will be considering in 2030.

The Future Directions study will guide development of a Western Sydney that is productive, sustainable and liveable in 2030.

This discussion paper is the first deliverable of the study. It is intended to start a dialogue about potential directions, ahead of a final report. This paper is informed by an understanding of some of the challenges facing both Western Sydney and global cities generally. It is not intended as a comprehensive statement of Western Sydney today as there are extensive studies that have already done this, nor is it intended to provide a comprehensive suite of solutions, but instead to commence a community dialogue.

The discussion paper is structured as follows.



2 The Forces Shaping our Cities

Whilst we cannot know the future, we do know that a number of local and global trends are likely to create real threats to the future wellbeing of Western Sydney communities. Planning for Western Sydney must take account of the following interconnected pressures which will pose challenges for the future of communities, the economy and the environment.



Keeping abreast of rapid growth



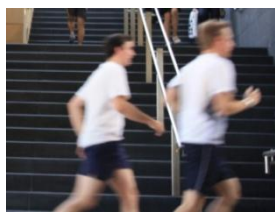
Overcoming social disadvantage



Adapting to climate change



Preparing for a resource constrained future



Reversing declining public health trends

Experience has shown that, even if these challenges did not exist, a business-as-usual path results in lost opportunities and disadvantages to communities and the broader economy. These challenges add extra impetus for action and offer a framework for considering the future of Western Sydney.

Western Sydney is a significant contributor to Sydney's reputation and performance as a global city. The capacity for the region to withstand these pressures will define the region's future and in turn its standing as a city-region with global importance.

2.1 Keeping abreast of rapid growth

Over the past two decades, State and Local Governments across Australia have been scrambling to keep pace with growth, whilst the Federal Government has adopted a largely hands-off position. A focus on debt-free government and AAA credit ratings has seen a significant decline in government expenditure on infrastructure. The past 20 governments have focused on public-private partnership delivery models that tend to bias investment towards projects that maximise return for investors rather than those that maximise return to the community.

These trends have led to an infrastructure backlog, particularly in the outlying growth areas such as Western Sydney. Both urban sprawl and inner city densification have posed challenges for government; the urban sprawl because of the need to provide new infrastructure to meet dispersed need, and inner-city development because of the inability of ageing infrastructure to accommodate additional loads.

More than half of Sydney's employment and housing capacity targets are located in Western Sydney



2

Common infrastructure backlogs facing State and Local Governments in Australia include:

- Congestion of roads and overcrowding on public transport;
- Dwindling water supplies and vulnerability to drought;
- Increasing demand for electrical energy and peak usage which exceeds supply;
- Ageing water, stormwater and sewerage infrastructure that causes waste and does not meet environment standards and community expectations; and
- Inadequate forward supply of affordable, serviced land for development, placing the cost burden of meeting infrastructure gaps on individual developments.

State Governments have prepared whole of city and regional plans that seek to plan development in major cities in a more orderly manner and support planned infrastructure delivery. Typically, these plans have adopted a 30 year life span, however, in practice these plans are being revisited or updated after 5 years and undergo a total rewrite at the 10 year mark. Common themes and objectives within the regional and metropolitan plans, and relevant to Western Sydney, include:

- The development of an urban footprint or boundary in a bid to constrain outwards growth;
- Incentives for increasing densification and attracting mixed uses to the inner-city and around key transit sites;

² NSW Government, 2010, Metropolitan Plan for Sydney 2036.

- Planning for secondary office hubs and/or a city of connected hubs;
- Forward planning for freeway and transit corridors;
- Protection of ecologically significant areas; and, increasingly
- Strategies for green house gas emissions reduction and other sustainability initiatives.

The objective is to plan and match infrastructure spending with the city or regional plans. This has not necessarily happened.

Infrastructure backlogs in Australian cities are acting as brakes on productivity and community development. However, there is risk that in the rush to catch up, outdated development models are reinforced, creating unintended barriers for later generations. Future-facing solutions are required that deliver the desired outcomes now and provide capacity for transformation. This is particularly relevant in Western Sydney, which is losing out across many areas, including transport infrastructure, housing diversity and social services.

How can Western Sydney meet the needs of a growing population in a resource and economically constrained future?

Business-as-usual solutions to these problems will not suit a future that is characterised by further growth and constraints on carbon, oil and land. Future-facing solutions will be characterised by:

- Decentralisation of supply, networks and services;
- Decarbonisation of energy networks and transport infrastructure;
- Less land per capita devoted to road infrastructure and more efficient use of existing roads;
- Industrial ecology, waste mining, and closed loop supply systems;
- Greater recycling, reuse and adaption of existing resources and infrastructure;
- Full exploitation of environmental assets and services to mitigate climate change effects;
- Community engagement and locally managed solutions; and
- Maximising the use of the existing urban footprint.

Western Sydney has an opportunity to embrace these solutions as it meets existing need and plans for the future. This report identifies strategies to do this.

2.2 Overcoming social disadvantage

Economic growth is often touted as one of the key benefits of globalisation. It has been shown to have a positive impact on nations around the world. Economies are transitioning from a near stagnant base to a growth profile that will allow them to compete with so called “1st tier economies”. China and India are examples of this rapid transition.

How can Western Sydney reduce the growing gap between rich and poor?

However, this good news is shadowed by a more disturbing trend. The OECD’s 2008 paper ‘Growing Unequal’ found that in many member countries upper incomes soared whilst low incomes remained relatively unchanged. It found that inequality had increased in 27 of the 30 member countries over the past twenty years. This inequality exists within Western Sydney, and between Western Sydney and Sydney as a whole.

On average, people living in the WSROC region have lower individual and household median incomes than the average for Sydney overall, a gap that has increased over the past decade as indicated by an increase in the number of houses in the bottom quartile and the consistent trend of higher unemployment. As a result, resources are directed to ameliorating the impacts of disadvantage rather than growing community assets.

In the context of social disadvantage, relative wealth (that is the gap between rich and poor) is a more effective indicator of socio-economic wellbeing than measures of absolute poverty. Relative wealth captures those households which live above the poverty line but remain excluded from opportunity due to reduced capacity to access education, jobs, health care and other services. ‘Growing Unequal’ links rising inequality to a reduction in social mobility, which can be attributed to the loss of these opportunities.

How can Western Sydney harness the benefits of economic growth to the advantage of all residents?

Despite growing wealth in the region, there is continuing social disadvantage and disparity in Western Sydney, which represents a loss of opportunity and productivity. The combined effects of lower workforce participation rates, higher rates of unemployment and higher levels of part-time work mean that as much as 50% of Western Sydney’s potential workforce is not engaged in effective work. This represents a significant untapped resource.

There are growing concerns about housing affordability across Sydney. Despite average housing prices being significantly lower in Western Sydney, affordability issues remain significant due to the lower average household incomes in the region. Further, measures of housing affordability must also take into account the transport cost of accessing jobs, childcare, education, health and other services as well as the cost of energy, water and food at the dwelling. These costs represent a relatively high proportion of expenditure for many households in Western Sydney, making households vulnerable to rising prices.

It is widely accepted that the price of essential services such as energy, water and transport (electricity, gas, petrol/diesel) will continue to rise into the future, thus exacerbating this stress. In part this is due to a consumer pays approach to funding infrastructure. Price rises will also be influenced by a future carbon price and competing demand for dwindling resources. Whilst it is expected that the impact on consumers will initially be mediated by compensation, there will be more structural and far-reaching impacts, particularly on low income households. Some examples are described below.

- Household energy costs are influenced by the thermal efficiency of the home and efficiency of appliances. Lower-income households may not be able to afford the capital costs of these interventions, and are more likely to be occupying inefficient housing stock.
- Without an immediate improvement in public transport, or in urban restructuring to bring jobs closer to people, those living in parts of Western Sydney and having to commute by private vehicle are likely to face price hikes in fuel. For some this may make the cost of accessing employment or services too high.
- The opportunity-cost of spending on housing and transport in place of food and other essentials may have a negative effect on social engagement, health and mental wellbeing.
- As the cost of associated goods and services rise, some activities and goods, including higher education, will become out of reach for some, further entrenching disadvantage. This may become a particular problem for those seeking work and single parent low income households.

In order to create a future for Western Sydney where social disparity is reduced rather than exacerbated, it is necessary to look for mechanisms to address these risks. Later sections of this report identify many such solutions, including: housing choice and affordability; localising jobs, services, production and supply; and greater uptake of public and active transport systems.

2.3 Adapting to climate change

Climate change is impacting upon our environment, human health, our infrastructure, our cities and our economies. Ambient global temperatures have risen and continue to rise. This is evidenced by a global increase in hot days and extreme weather events, including severe cold weather events.

Australian communities have long been at risk from droughts, floods, cyclones and fires, although regional and rural communities have more often felt the impacts. In 2011 we witnessed the impacts of these hazards in cities. Although fire, drought, cyclones and floods are all part of the natural cycle, the predicted increase in their frequency and severity will deliver hardship and uncertainty to cities and communities as well as irreversible changes to Australia's unique biodiversity.

Western Sydney has experienced a 250% increase in the number of days of extreme heat since the 1960s, compared to 22% in Sydney

Climate change in Sydney is predicted to result in warmer temperatures on average and an increased frequency of extreme weather events including heat-waves, rising sea levels and increased rainfall in summer. Drier conditions are expected during winter and spring.

Western Sydney is already experiencing the impacts of climate change. By taking just one measure, days of extreme heat, it is clear that climate change is having a disproportionate effect on the region. Western Sydney has experienced a 250% increase in the days of extreme heat since the 1960s, compared to Sydney, which has experienced a 22% increase³. Whilst the urban heat

island effect may be a factor in this increase, it is likely that climate change is also driving this change. Importantly, the combined effect of climate change related temperature increases and the urban heat island will be an effective magnification of the increasing heat.

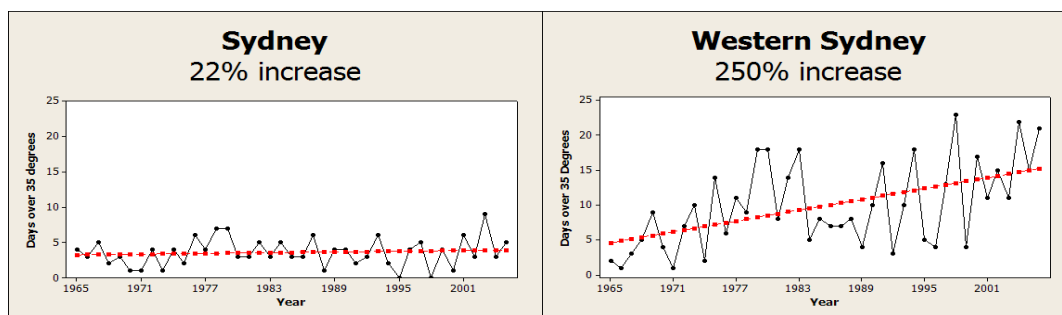


Figure 1 Greening Australia analysis of comparative days over 35 degrees

Western Sydney is also likely to be significantly impacted by the predicted changes in rainfall conditions. Changes in rainfall patterns will impact on ecological communities, agricultural production and riverine systems. Less rainfall in winter and spring may change water consumption patterns throughout Sydney with potential implications for the capacity and functions of region's reservoirs to maintain water security. Urban salinity is an emerging problem in Western Sydney that is likely to be amplified by the combined effects of more hot days and extended dry periods. The combination of drying conditions and large areas of vegetation will result in an increased fire risk, which may endanger human and ecological communities. Western Sydney already experiences poor air

³ <http://www.greeningaustralia.org.au/community/news-item?newsItemId=1>

quality, hence an increase in hotter days may increase the days when air quality exceeds acceptable levels. Finally, heavier summer rains may pose flood risks for the WSROC communities sited on flood plains.

As Western Sydney looks to the future, development and planning activities need to respond to and seek to mitigate these changes.

In particular the impact of these changes on the most vulnerable populations has not, to our knowledge, been thoroughly assessed for Western Sydney.

Understanding the potential impact of heat is an emergent priority. Work has been undertaken by the Victorian Department of Health to develop a methodology for assessing a range of impacts of climate change on vulnerable populations, which include the very young, the elderly, people who suffer chronic illness and people who spend large periods of the day in poorly functioning houses. A similar study would be useful for Western Sydney.

What might be the impacts of climate change for vulnerable human and ecological communities in Western Sydney, and how can the region adapt to these?

2.4 Preparing for a resource constrained future

As the global population grows, there is a corresponding reduction in the amount of productive land and global resources available to support each person. However consumption patterns are trending up globally. Global shortages in water, food, oil, rare earth metals, phosphate, iron ore and arable soils are emerging. Constraints on carbon via pricing regimes will create another type of resource shortage.

Resource shortages place direct pressure on natural habitats as humans and ecosystems compete for land. We now know that forests, oceans, rivers and grasslands all play crucial ecological functions in filtering air, water and soil and regulating our climate. The loss of essential ecological systems due to growth increases the vulnerability of our cities and communities.

The **ecological footprint** presents an indicator of how much arable land is required to support our lifestyles. The ecological footprint is measured in global hectares per capita and takes into account the land required to provide the resources we utilise (water, food, shelter, energy and travel) and the land available globally to meet these needs. It is estimated that less than two global hectares are available for each person based on the current global population. In post-industrial countries such as Australia the current average footprint is more than three times the available land. By 2050, with a predicted population of 9 billion people, 1.44 global ha will be available per person.

The Australian Conservation Foundation (ACF) commissioned the production of an Ecological Footprint of Australians by postcode, LGA and by State⁴. The ACF footprint study indicates that areas of Western Sydney have a footprint of up to 10% less than the State average.

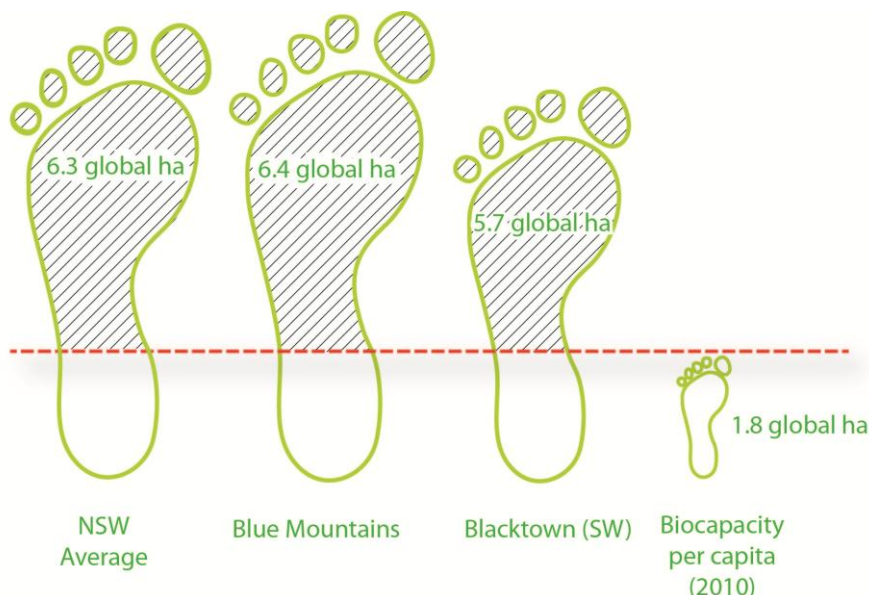


Figure 2: Comparative ecological footprints for Western Sydney and NSW. Source: Footprint.org and the Australian Conservation Foundation.

⁴ The complexity of preparing a footprint and inconsistency of data means there are a number of questions about the accuracy of this study (and any ecological footprint). The footprint is prepared using input and output analysis of production and consumption within the economy and income data. It assesses carbon, water and land-use against consumption and production.

However, although the average **ecological footprint** for Western Sydney is below the NSW average, it is still three times the land available globally. Ecological footprint analysis can provide an understanding of areas of significant consumption, identifying target areas for improvement. For example, about one half of the average Australian ecological footprint is food related and over a third is related to goods and services, suggesting the need to radically overhaul the sustainability of the production and supply of food, goods and services.

To position itself for a sustainable future, Western Sydney needs to effect significant change in supply and consumption and find innovative ways to do more with less.

What can Western Sydney do to reduce its global ecological footprint?

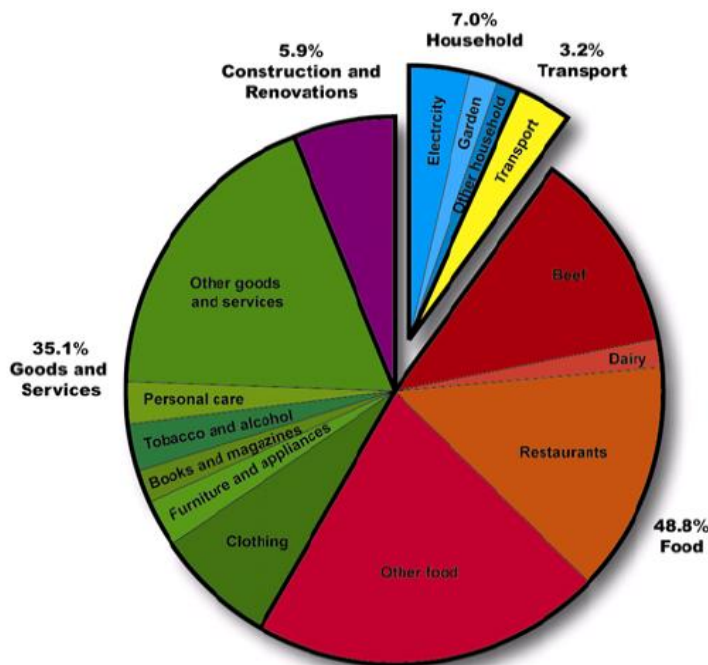


Figure 3: Breakdown of the Ecological Footprint of the Average Australian (Dey et al n d.)

2.5 Reversing declines in public health

The nineteenth and twentieth centuries were characterised by rapid advancement in health technologies, primary health care and in the discovery of cures and treatments for many diseases. Improvements in basic living conditions, particularly access to water and sanitation, directly translated to an increase in average life expectancy and dramatic decline in the rate of disease transmission.

These trends are more pronounced in affluent nations, however, within nations such as Australia, life expectancy and health outcomes vary significantly across different population groups depending on socio-economic advantage. The most disadvantaged communities in Australia continue to suffer conditions that are non-existent in the wider community. This is evident in the health statistics of Western Sydney, which demonstrate a higher incidence of communicable disease and a shorter average life expectancy.

Despite advances in modern medicine, life expectancy is now impacted by a growing trend in preventable, non-communicable chronic diseases. Australians are suffering lifestyle diseases such as cardio-vascular conditions and stroke, asthma, diabetes, depression and some cancers, which can all be attributed to a number of lifestyle factors, including:

- Childhood obesity;
- High levels of private car use and reduction in incidental physical exercise;
- Diet and nutritional intake;
- Drinking, smoking and illicit drug use;
- Social isolation, domestic abuse and family breakdown;
- Engagement with employment and safe workplaces.

Half of preventable hospitalisations in Australia are due to a small handful of avoidable lifestyle diseases.

These are often described as lifestyle diseases and are placing an increasing burden on our health care system and national expenditure and productivity.

Work undertaken by the NSW Centre for Physical Activity and Health (associated with UNSW) further demonstrates that the relative risk of chronic disease correlates to gender, age, socio-economic status, education level and geographic location. It suggests that men and women in Western Sydney are at greater risk of lifestyle disease than in other parts of Sydney.

As described earlier in Section 2.4, climate change may also add to the health burden in Western Sydney. In particular declining air quality and increasing temperatures are likely to cause new or additional health concerns, and people already suffering from chronic health conditions are likely to be most vulnerable.

The way cities are designed and the way people live in cities have contributed to this disease trend. A growing body of research demonstrates that urban form and the structure of cities can enhance or diminish the opportunities for healthy living through promoting:

- Incidental physical activity;

- Food growing, healthy food marketing and healthy eating opportunities;
- Greater vibrancy and safety on the streets;
- Greater opportunities for community cohesion, celebration and collective activity.

Analysing Western Sydney through this lens reveals shortfalls in:

- Access to fresh food or healthy pre-prepared food providers;
- Limited accessibility of public transport for residents and workers; and
- Unsafe urban and pedestrian spaces which deters active transport modes at the neighbourhood scale.

How can we change the cities of Western Sydney to improve our health and that of our children?

WSROC's 'Agenda for Sustainability and Wellbeing'⁵ reinforces these regional cross-cutting themes and their relationship to the structure of the region.

All levels of government have identified the need to promote more active lifestyles through the design of cities. However, in the outer suburbs these intents are thwarted by the required investment in public and active transport networks, market barriers to increasing the spread of jobs, personal safety concerns, and community demand for more roads. These barriers result in many of the initiatives to improve activity and are benefitting inner city residents rather than communities that are more at risk in the outer areas.

The way in which preventable chronic diseases are impacting the people of Western Sydney warrants its own particular focus. In particular:

- How the relationship between poor health and multiple disadvantage be best addressed in the context of a plan for Western Sydney?
- How can the impact of worklessness and the underlying conditions contributing to chronic disease be tackled together within the region?
- How can urban form which is optimised for cars rather than people, be revitalised with the specific needs of the population of Western Sydney in mind?
- How can the health impacts of climate change be planned for in Western Sydney?

⁵ WSROC, May 2008. 'An Agenda for Sustainability and Wellbeing for Western Sydney'

3 Western Sydney Today

This section of the paper is intended to provide a quick snapshot of Western Sydney relevant to the issues considered in this paper. It does not purport to be a comprehensive picture of the current status quo in the region, which is covered in a myriad of studies and position papers. The snapshot is informed by background documents provided by WSROC and its member councils and the thought pieces prepared for this study.

3.1 Context

Greater Western Sydney, is home to over two million people and is one of the most culturally diverse places in the world⁶. It has the third largest economy in Australia, after Sydney and Melbourne⁷. Western Sydney is fuelling most of Sydney's growth, both through migration and domestic population. Western Sydney acts as a gateway for new Australians, with many new migrants settling in the area upon arrival. It is the engine room for Sydney's manufacturing industry and the lungs for its air-shed. It is Sydney's water factory.



The regional city of Parramatta, the geographic centre of Sydney is located in Western Sydney. Western Sydney can therefore be considered as being located in a central position in the Greater Sydney Metropolitan region, being strategically situated between the Sydney Central Business District and western NSW. Not only is Western Sydney home to the majority of Sydney's people, it also hosts some of the most extraordinary natural heritage, making it a place of diverse beauty and interest, and attracting residents escaping the city in search of a 'tree-change'.

In 2010 the Australian Government's Major Cities Unit released the 'State of Australian Cities Report' (2010), which provides baseline information about the current status quo and challenges of each major city. It is intended to provide the basis for annual reporting on cities against these themes. The following pages of this paper are arranged under the same themes as those used in the 'State of Australian Cities Report'.

- Population and settlement
- Productivity
- Sustainability
- Liveability
- Social inclusion and equity
- Governance.



⁶ <http://www.westernsydney.nsw.gov.au/about-western-sydney/demographics/>

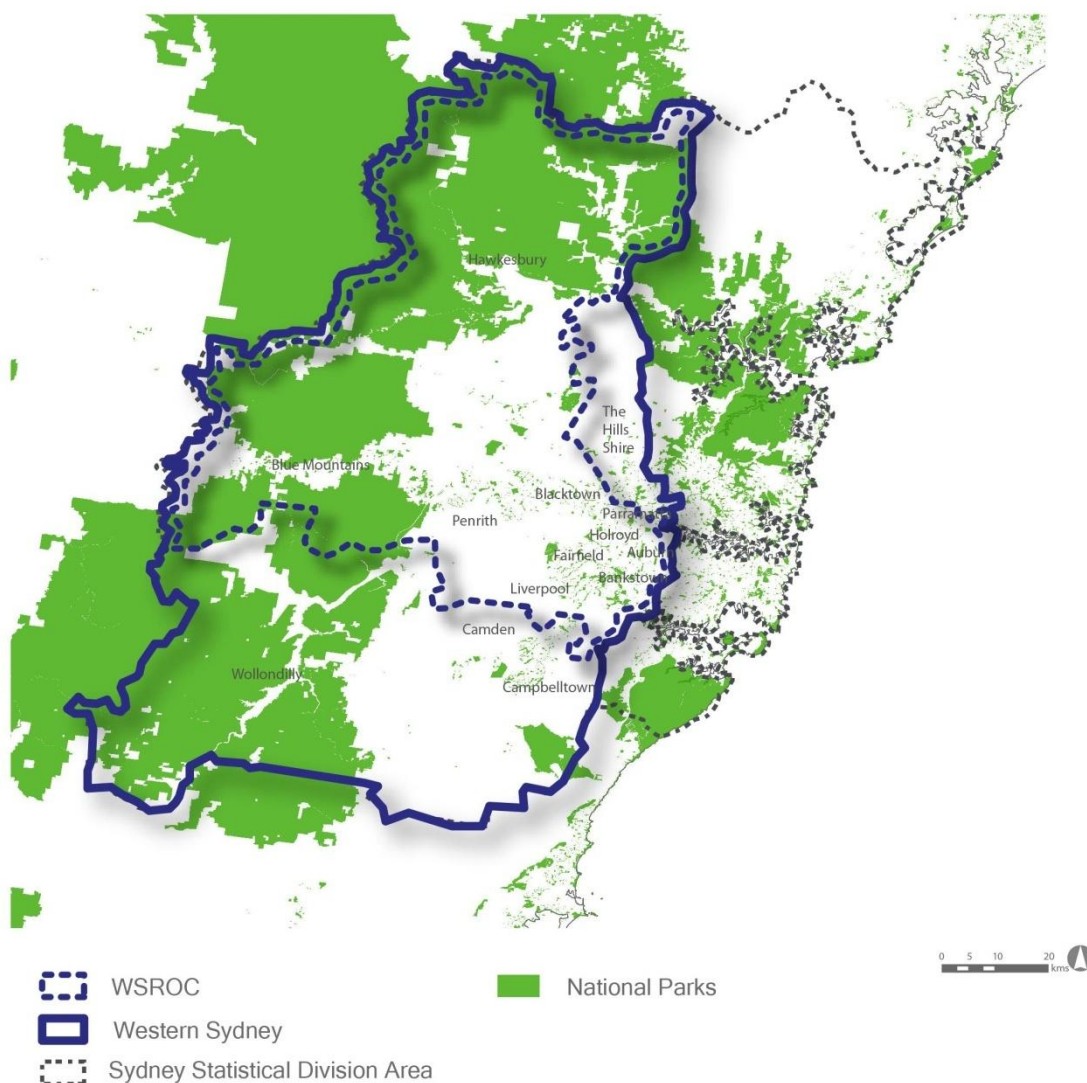
⁷ Meyer, B. Future Sydney – A city of cities.

The State of Australian Cities Report found that

“While Australian cities perform relatively well in terms of quality of life and other social issues, they are confronted by significant challenges including population growth and demographic change, transport congestion, living affordability, infrastructure development, productivity growth, climate change and ecological sustainability. Australian cities will need to respond effectively to these challenges in order to sustain the high quality of life enjoyed by urban communities into the future, and remain globally competitive.”

As is shown in the following pages, these challenges are particularly relevant to Western Sydney.

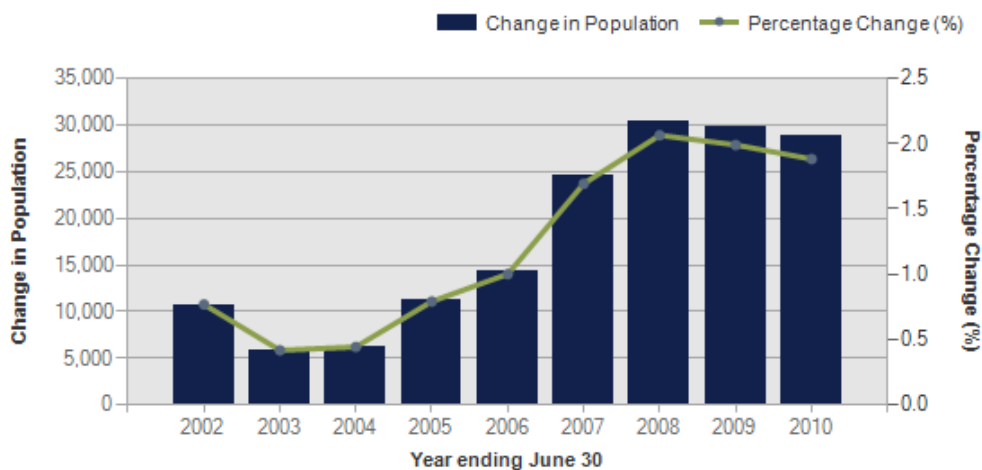
Figure 4: Map of the Western Sydney and WSROC Area



3.2 Population and settlement



In 2010, the WSROC Region was home to an estimated 1.5 million people, and more than 2 million people resided in greater Western Sydney. The region has experienced significant population growth since 2004 (Figure 5), predominately through large scale urban development in new estate areas. This growth is predicted to continue as Western Sydney houses the majority of land available for greenfield development in the greater Sydney region and the cities of Western Sydney are increasingly accommodating infill and medium density development.



Source: Australian Bureau of Statistics, Cat. No. 3218.0 - Regional Population Growth, Australia, 2009

Figure 5: Change in WSROC Resident Population. Source: ABS, 2009

Demographic characteristics

The WSROC region has a proportionally younger population than the average for the greater Sydney region. The WSROC region is also characterised by higher numbers of families with dependent children and larger households in comparison to the Sydney region as a whole. However, at the last census, lone person households were the fastest growing household type in the region, and consistent with an ageing trend across Australia, the 50 to 59 age range increased more than any other age group.

On the whole, WSROC is characterised by culturally diverse communities, although this varies considerably across the area. Many migrants settle in WSROC upon arrival, and consequently, more households originate from overseas than the Sydney average. Over 200 languages are spoken at home in Western Sydney, and the region is home to the largest urban communities of Aboriginal and Torres Strait Islanders⁸. At the 2006 census, more than 50% of households were born overseas within the local government areas of Auburn and Fairfield and just over 39% of the WSROC population spoke a non- English language at home, compared to a 29% average for Sydney.



The population in WSROC is younger than the Sydney average



The top ten languages, other than English, spoken at home in WSROC.

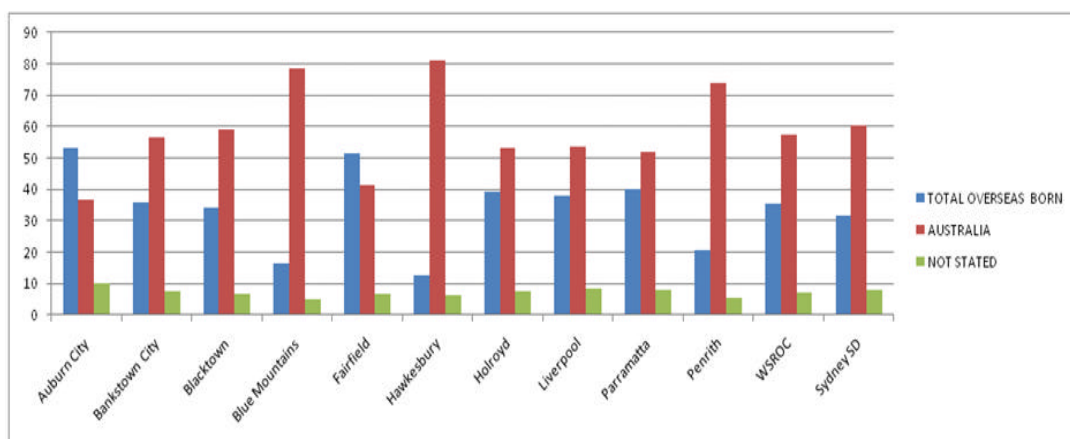


Figure 6 Country of Birth for LGAs in WSROC. Source: ABS, 2006

⁸ <http://www.westernsydney.nsw.gov.au/about-western-sydney/demographics/>

Pattern of Settlement

Western Sydney comprises a network of cities, towns, suburbs and villages, a legacy of its early history as a sparsely settled agricultural and extractive resource for Sydney. Settlement was initially influenced by a reliance on water borne transport, as evidenced by the development of Parramatta and of settlements along the Hawkesbury and Nepean Rivers. Road systems were along the paths of least resistance and good natural drainage, which follow winding indirect routes such as ridge lines.

Today the majority of land within Western Sydney remains undeveloped with almost 50% of the region protected within the conservation estate and approximately 25% allocated as rural and resource lands. Current and planned urban areas account for less than 25% of the region's land covering.

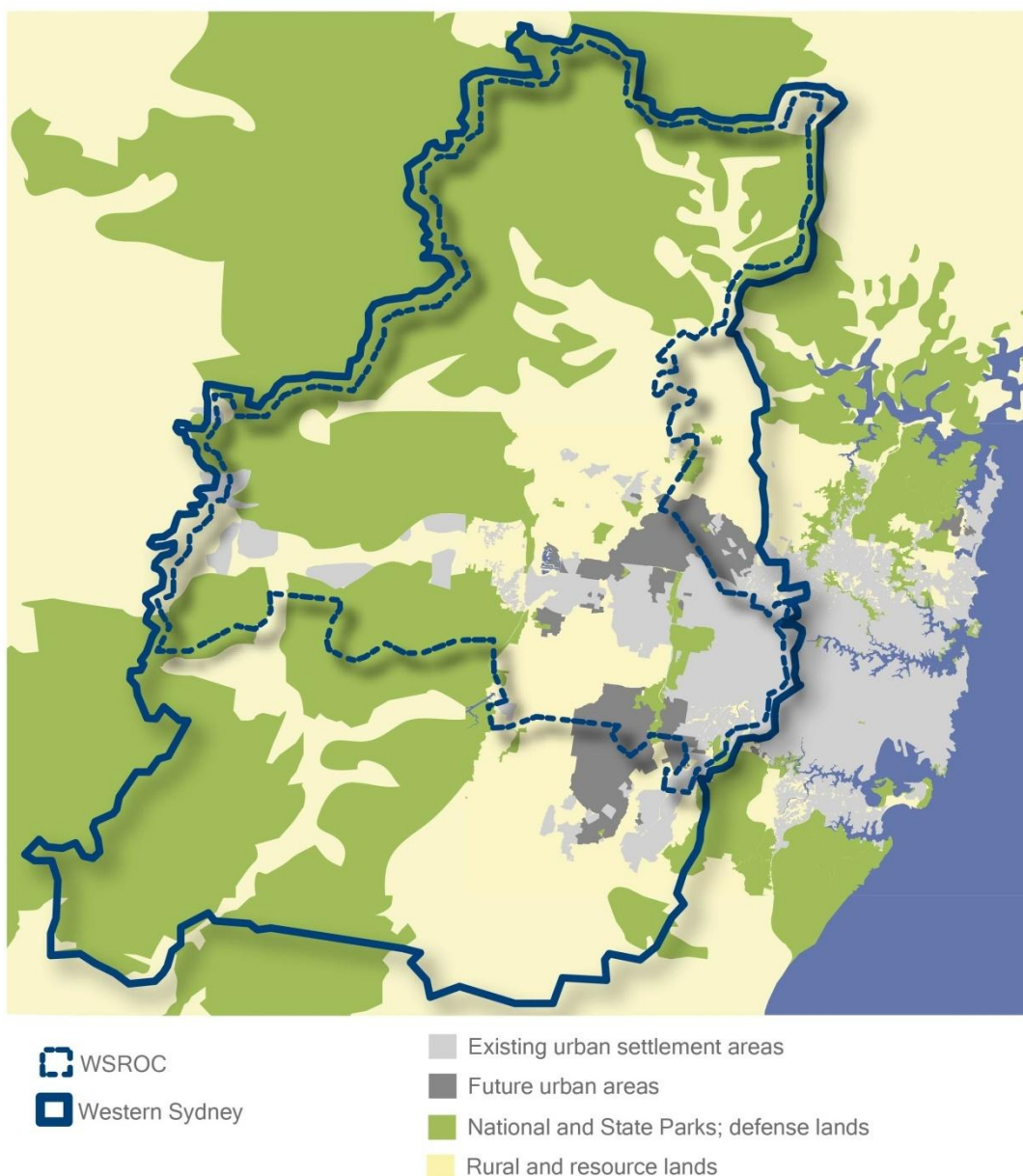


Figure 7: Urban Settlement in Sydney. Adapted from Metropolitan Plan for Sydney 2036.

The cities, towns, suburbs and villages of the WSROC region have different characters and patterns of development, reflective of the era in which they were developed. Figure 8 depicts a selection of two cities, two town centres and two residential suburbs, demonstrating the diversity in settlement patterns in WSROC.⁹

PARRAMATTA

REGIONAL CENTRE

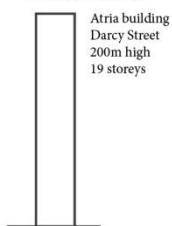
Era/ decade of establishment: late 1800s.

Residential Density : 0 residents per ha.

Employment Density : 272 workers per ha.

snapshot building form sketch

building height e.g.



BLACKTOWN

MAJOR CENTRE

Era/ decade of establishment : 1850s.

Residential Density : 16 residents per ha.

Employment Density : 177 workers per ha.

snapshot building form sketch

building height e.g.



ROOTY HILL

VILLAGE CENTRE

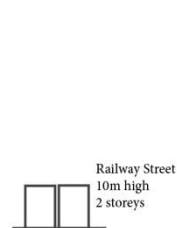
Era/ decade of establishment: 1860s.

Residential Density : 21 residents per ha.

Employment Density : 13 workers per ha.

snapshot building form sketch

building height e.g.



PLUMPTON

TOWN CENTRE

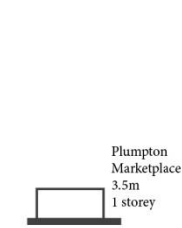
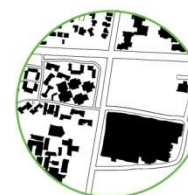
Era/ decade of establishment: 1960s.

Residential Density : 26 residents per ha.

Employment Density : 8 workers per ha.

snapshot building form sketch

building height e.g.



HARRIS PARK

HISTORIC RESIDENTIAL SUBURB

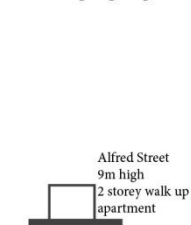
Era/ decade of establishment : 1870s.

Residential Density : 88 residents per ha.

Employment Density : 8 workers per ha.

snapshot building form sketch

building height e.g.



KELLYVILLE RIDGE

LOW DENSITY RESIDENTIAL SUBURB

Era/ decade of establishment : 2000s.

Residential Density : 23 residents per ha.

Employment Density : 2 workers per ha.

snapshot building form sketch

building height e.g.

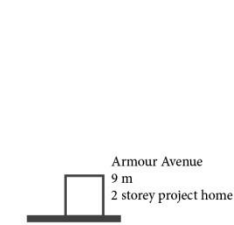


Figure 8: Characters and patterns of development in Western Sydney

⁹ Data sourced from NSW Bureau of Statistics Travel Zone Employment and Population Forecasts, October 2009.

Since the Second World War, the population has burgeoned as many of Sydney's new housing developments have occurred in Western Sydney. The vast majority of this new housing has been, and continues to be, detached homes for owner occupation in new greenfield developments. Today approximately 70% of housing stock in Western Sydney is detached houses. The balance largely comprises duplex developments and low rise flats around the urban centre, with some new higher density dwellings appearing in the larger centres such as Parramatta and Blacktown.



The proportion of detached housing in Western Sydney is currently comparable with Melbourne and a raft of regional cities and regions. However housing forms and lot sizes in Australian cities are changing rapidly. There is anecdotal evidence that the relatively low cost of existing stock in some parts of Western Sydney provides a barrier to diversification of housing stock as the cost of developing new higher density dwellings cannot compete with the existing detached stock¹⁰. This trend should be monitored and mechanisms may be required in the short term to overcome this situation.

¹⁰ Blacktown Planning Strategy – Employment and Economic Report, Hill PDA 2010

3.3 Prosperity

Western Sydney's Assets

From settlement in the 1780's until the 20th century, Western Sydney's primary role was as a resource hinterland for the growing "Sydney Town". Parramatta was the furthest direct navigable transport point into this fertile land, its future secured by a navigable connection to the harbour and a reliable fresh water supply. The discovery of the Hume Highway route to Victoria and the Great Western Highway route over the Blue Mountains opened up the possibility of rich country and new areas of resources including gold mining, timber and pastoral trade.

Land and transport are still the great assets of Western Sydney. The challenge for the WSROC region is how to retain benefit from the inherent value of resources, transport and trade for its people and communities.

Since 2001 Australian cities have been responsible for more than 80% of national economic growth. However, economic growth in Western Sydney has not kept pace with residential growth. The capacity of Western Sydney's cities to achieve significant growth is constrained by numerous factors including; land tenure and fragmentation, the dominance of residential uses, economic barriers to development, poor infrastructure and negative perceptions associated with the area. Addressing these constraints is necessary to allow centres in the WSROC region to achieve both their employment and housing targets.

The highest and best use for much of the land in Western Sydney is currently perceived as being residential. This is not a sustainable model of development and will increase other challenges such as social disadvantage and congestion. Priority land uses central to addressing disadvantage and securing a sustainable future for the region include:

- Retaining productive agricultural lands for food security and job diversity;
- Developing significant employment lands within Western Sydney that provide jobs for residents;
- Allocating land for community services, including sizeable higher education campuses;
- Allocating land for hi-speed/rapid transport corridors; and
- Conserving the ecological value of conservation areas, water catchments and riparian systems, particularly to assist in climate change mitigation.

The Infrastructure Gap

There is a nationwide issue of a gap between infrastructure investment and economic growth in our cities. This gap is pronounced in Western Sydney, where it is characterised by insufficient rapid public transport options and roads clogged with congestion.

Without appropriate infrastructure planning and investment, further economic gains in our cities could be impaired by congestion, air quality, water and energy shortages and other consequences of inadequate

How can Western Sydney draw more benefit from the value of its assets?

Avoidable road congestion could cost our cities approximately \$20bn by 2020, mostly as lost productivity.

(Our Cities, Our Future. MCU, 2011)

infrastructure. There is also a risk of labour shortages as it becomes less affordable for a diverse skilled workforce to live in the cities.

Sydney's Metropolitan Transport Plan (February 2010) is the State Government's package of measures to enhance Sydney's transport network. The plan includes a number of rail projects of importance to Western Sydney, including: the South West Rail Link currently under construction; the Western Express Program; and the North West Rail Link. If delivered, these rail links and upgrades should improve access and reduce travel times within and to and from the region.

However these plans alone will not address the long standing infrastructure gap, which includes road infrastructure, social services and telecommunications.

Employment and Economic Profile

Unemployment in Western Sydney is higher than in the greater Sydney area and there are less jobs per capita than the Sydney average.

For many years WSROC has consistently had a higher unemployment rate than the Sydney average (7% in 2006, compared to 5.3% in the SSD) and a lower labour force participation¹¹. One contributing factor is the disparity between job options and residential population in Western Sydney, which will be exacerbated by current growth projections that do not match jobs growth with residential development.

Manufacturing industries are the largest employment sector in the WSROC region, providing 13.9% of the jobs in 2006. Compared to the Sydney region as a whole, the WSROC region (with the exception of Parramatta) has a clear under-representation of technical and professional jobs and creative/cultural industries. Residents seeking work in these areas are likely to need to commute to Parramatta or further beyond the region.

Approximately 60% of WSROC's resident workforce works in the region, with the balance commuting to the Sydney CBD or other job centres in metropolitan Sydney. This presents lost opportunities for the region, contributes to road congestion, impacts on health and well-being and puts households at risk of fuel poverty. Current forecasts suggest that without focussed intervention the WSROC region will continue to have a low representation of jobs in cultural, professional, educational and service based industries.



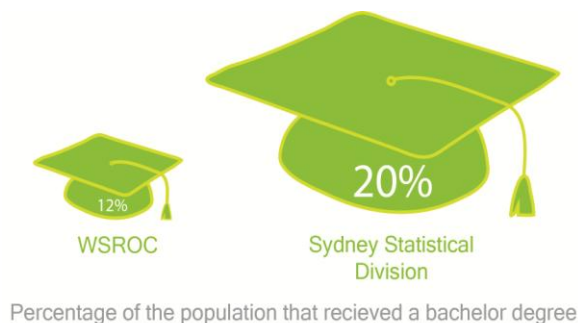
40% of WSROC residents are travelling outside of the region for work.

Evidence suggests that the representation of these industries underpins a high quality of life and experience and supports employment and economic growth (Gibson, Murphy and Freestone 2002). The perception of Western Sydney or its 'stigma' as a less prestigious business location, particularly in comparison to Sydney's Global Economic Corridor and the CBD, is a key issue when trying to attract service and knowledge based jobs. Consequently, economic uses cannot attract premium rents and the business case for the development of commercial offices is poor. Despite the existence of large parcels of employment lands, commercial development may need to be incentivised to address the widening gap between jobs and residential growth.

¹¹ ABS, 2006.

Notwithstanding the challenges of attracting ‘prestigious’ employers and job options to Western Sydney, a growing population will fuel a growing service sector. The service sector is the fastest-growing source of high-value jobs in Australia, accounting for 75 % of economic activity and 85 % of jobs¹². Westfield Parramatta is already the second busiest building in NSW after Sydney Airport, with over 30 million movements annually¹³ and demand for retail, entertainment, education health and child care services will grow steadily in Western Sydney as population increases.

Residents in Western Sydney have on average had less access to education than other residents of Sydney. At the 2006 Census, WSROC had a larger percentage of people with no qualifications (50.9% compared to 42.8%) and a smaller percentage of people with Bachelor or Higher degrees (12.6% compared to 20.0%), in comparison to averages for Sydney. Changing demographics is generating a demographic cohort seeking tertiary education opportunities and choice, which are currently under-represented in the region, as depicted in Figure 9.



Without the adequate provision of professional and cultural industries, and greater access to tertiary education, the existing divide between Sydney and Western Sydney, also referred to as the ‘Two Sydney Phenomenon’, will intensify.

¹² The State of Australian Cities Report, Major Cities Unit, 2010

¹³ Mayor of Parramatta, PCA 6 May 2011, requires reference details

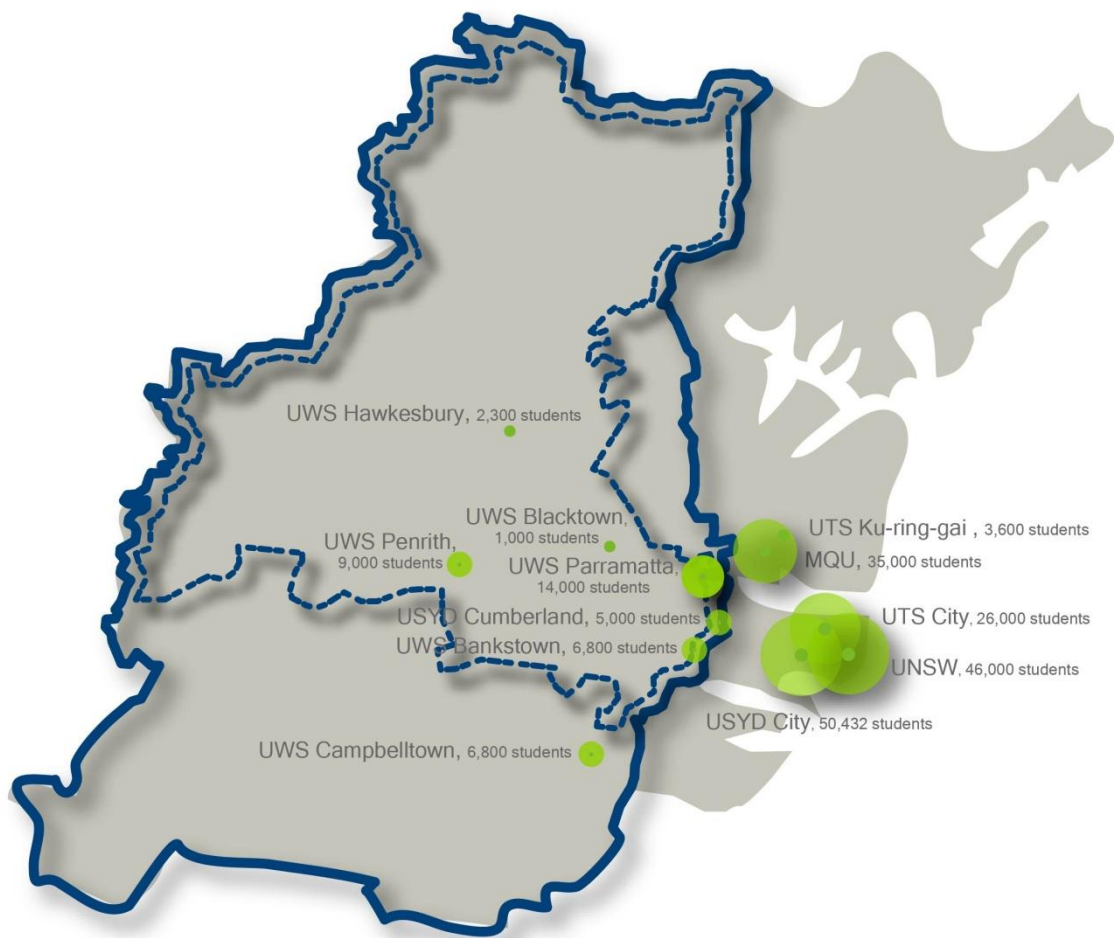


Figure 9: Education opportunities in Sydney and approximate student numbers from 2009/2010.

3.4 Sustainability

At its most broad level, sustainability is an all-encompassing framework that recognises the role of people, the planet and all other living creatures in an eternal cycle of balance and imbalance. At its narrowest level, sustainability is considered simply to refer to the environment and its protection for future generations. In the context of this paper sustainability is taken to be inclusive of the three pillars of environment, economy and society.

Within Australia, sustainability was defined as 'Ecological Sustainable Development' in the 1990s. While the term encompassed environmental, social and economic sustainability it is frequently applied with a heavy focus on the natural environment. In the context of the National Urban Policy, sustainability is predominately defined by resource use, carbon emissions and climate change vulnerabilities. This focus is adopted in this discussion. Social and economic sustainability are considered in other sections.

Overwhelmingly, as Australian households get richer and smaller they have a higher environmental impact per capita. Although Western Sydney is currently estimated to have lower average levels of consumption than other areas of Sydney (Refer to Section 2.4), as the region grows and diversifies, consumption patterns are likely to increase.

A recent Arup study of a Snapshot of Greenhouse Gas (GHG) Emissions for Sydney estimated the GHG emissions arising from the use of stationary energy and transport energy for the Greater Metropolitan Area of Sydney for 2008 by Local Government Area. The results were normalised per capita for the Western Sydney region are presented in Figure 10 below.

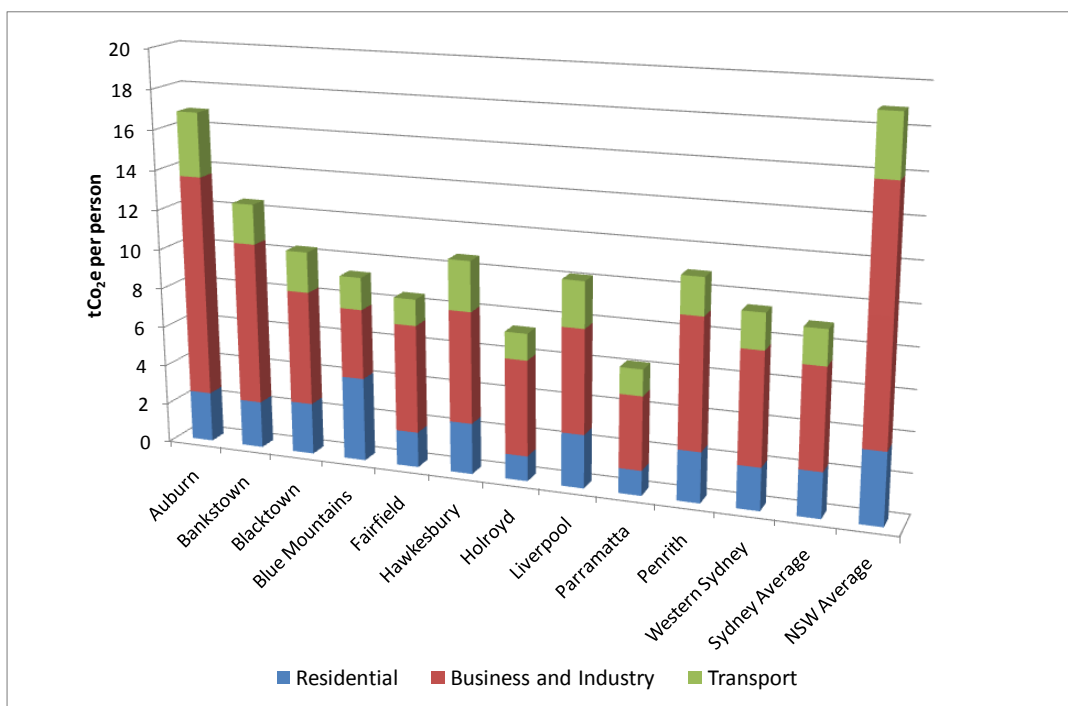


Figure 10: Emissions for Western Sydney per capita. Source: Arup.

The emissions snap shot indicates that Western Sydney energy related GHG emissions are greater than the Sydney average on a per capita basis, largely due to emissions

attributed to business and industry. Residential consumption is similar in many LGAs and significantly less in Fairfield, Holroyd and Parramatta.

Travel related emissions are greater in most LGAs except Parramatta, Holroyd and Fairfield, which each have a higher level of local jobs and/or public transport. Overall, a greater portion of people living in the WSROC region use private motor vehicles to travel to work when compared to the Sydney Statistical Division. 14% of working residents within WSROC use public transport to travel to work, which compares with 18% in the Sydney SD. However, for those LGAs well served by trains (such as Parramatta and Auburn as shown in Figure 11) more than 1 in 5 working residents use public transport to travel to work, which is higher than the Sydney average. These results are reflected in the analysis of GHG emissions.

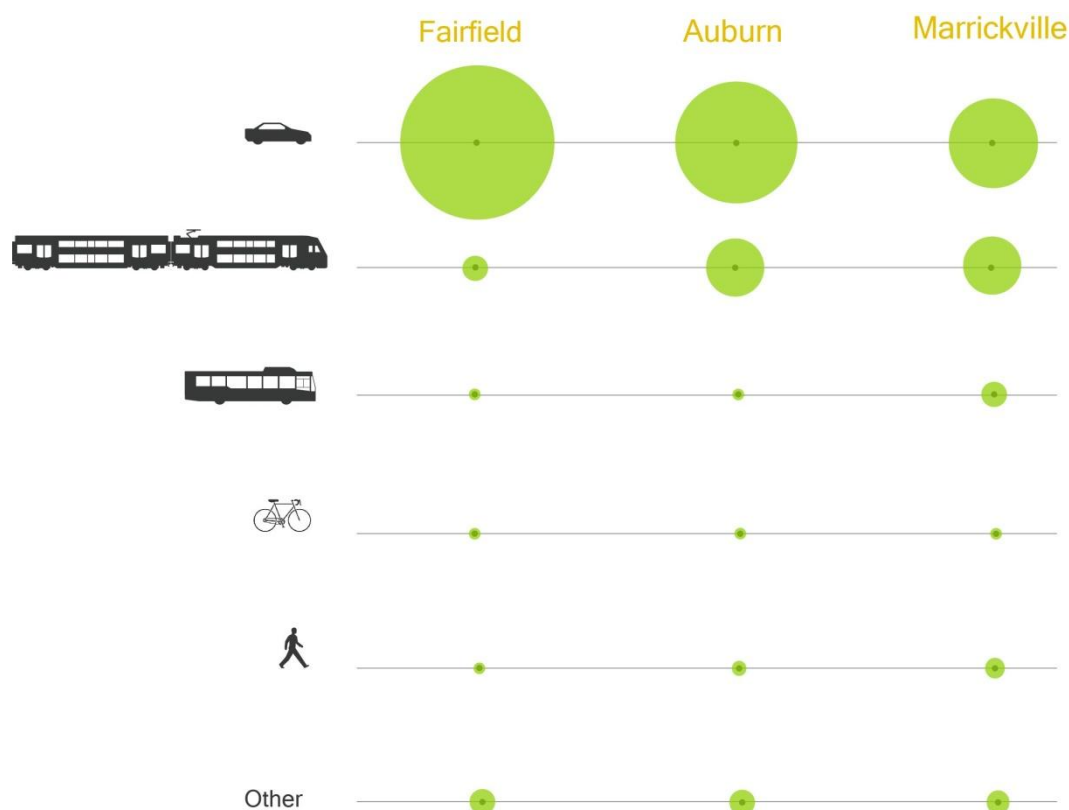


Figure 11: Mode Split data comparison for Fairfield, Auburn and Marrickville. Source: ABS, 2006.

3.5 Liveability

Liveability describes the extent to which we can enjoy active, healthy and happy lives. In this section we consider the health status of residents in Western Sydney and the extent to which the living environment impacts on health. We also examine the economic vulnerability of households, as these impact on health, nutrition and the capacity to access resources that can improve liveability.

Health

In Australia, a higher proportion of people in the lowest socio-economic groups have poorer health. A higher proportion of people in these groups also live in areas characterised by poor urban design, poor public transport, inadequate facilities, and limited healthy food options. Urban form and the structure of cities either enhances or diminishes the opportunities for healthy living through incidental physical activity, access to healthy food and improved social cohesion and safety.

Health statistics for Western Sydney, published by the South West Area Health Service and Western Sydney Area Health Service (2002), indicate that people living in Western Sydney are more likely to die before 74 and also experience slightly higher incidences of most lifestyle related diseases¹⁴. The Western Sydney population is also more at risk of lifestyle diseases; particularly smoking, which directly correlates to higher rates of lung cancer and pulmonary disease. Residents in some areas of Western Sydney are also less likely to exercise than the Sydney average. Western Sydney's health statistics are also characterised by a significantly higher incidence of notifiable disease.

People living with chronic disease are of course more vulnerable to other diseases and other factors such as extended periods of extreme heat. This compounding effect of health and disadvantage particularly extends to: the elderly; the very young; and people who are immune-suppressed. However, it can also extend to working age adults who are rendered less able to engage in meaningful work due to their health status.

A 2002 report on health inequality prepared for Western Sydney Area Health Service summarises this data succinctly.

*The data described in this report highlight issues of individual and population health status and service utilisation that are not new. Higher rates of hospital utilisation and premature mortality in those parts of western Sydney characterised by social and economic disadvantage are similar to patterns described in comparable populations elsewhere. The challenge is to take the next step, and move beyond the data to thinking strategically about service and program planning based on an understanding of the factors producing the inequality described here.*¹⁵

¹⁴ Selected chronic diseases that can be attributed to lifestyle factors account for more than half of the preventable hospitalisations in Australia. These include cardiovascular conditions and stroke, asthma, diabetes, depression and some cancers.

¹⁵ Western Sydney Health Inequality Profile, Centre for Epidemiology, Indicators, Research and Evaluation Unit, 2002.

Cost of Living

The VAMPIRE Index measures car ownership, mortgages, incomes and petrol prices to assess the economic vulnerability of households. The data suggests that households in Western Sydney are spending more on housing, transport and associated running costs than on other essentials like food, clothing and other goods and services. The VAMPIRE Index analysis indicates that households in Western Sydney are highly vulnerable to price changes in the two areas of mortgage stress and petrol prices, and unsurprisingly, those areas that are furthest away from regional centres are most at risk. This vulnerability is graphically represented at Figure 12.

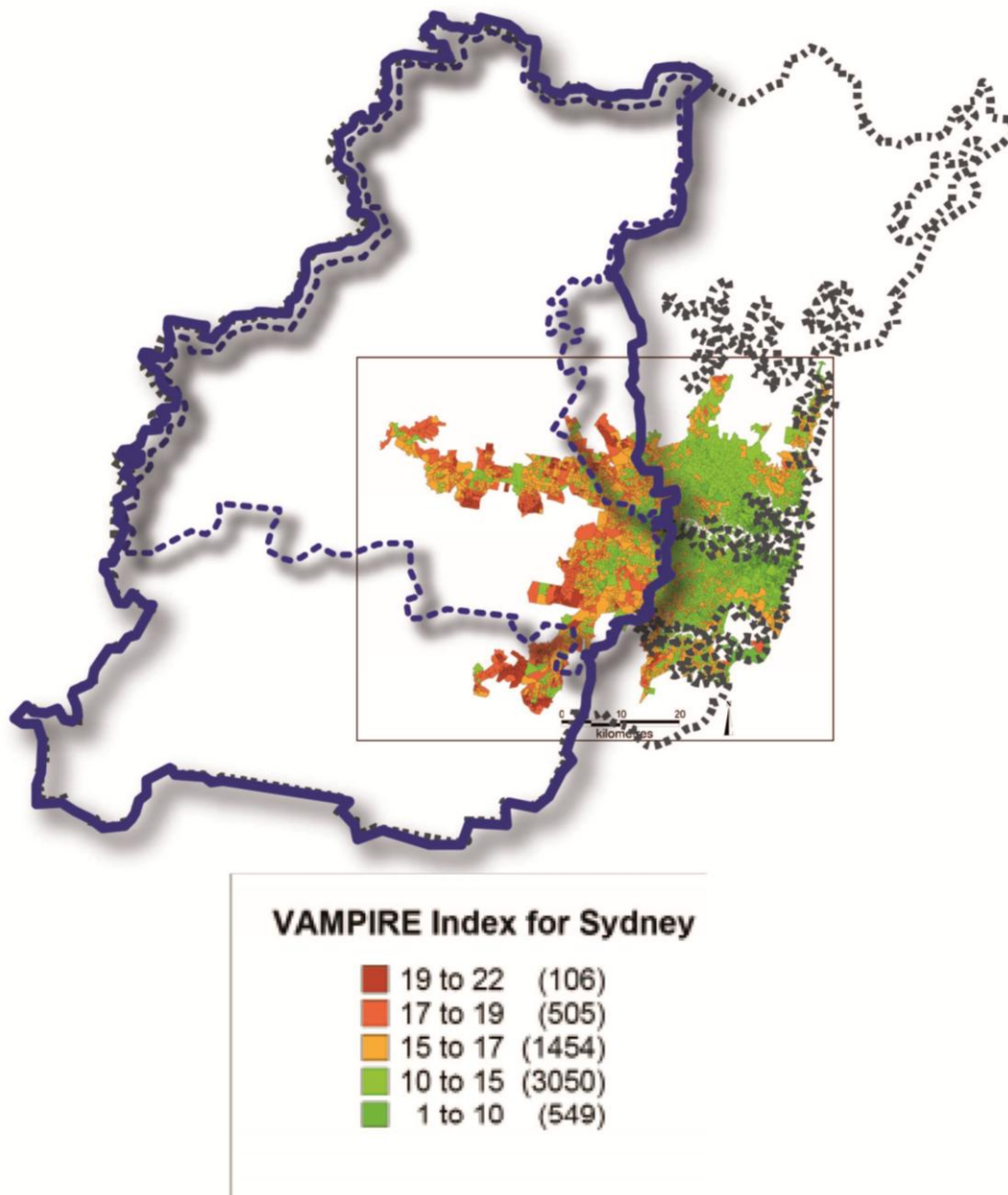


Figure 12: Dodson & Snipe 2008 Sydney VAMPIRE Index with Western Sydney overlay

3.6 Social Inclusion and Equity

Overall, the WSROC region experiences higher socio-economic disadvantage than the Sydney Region. Six of the most disadvantaged statistical local government areas of the Sydney Metropolitan Region are located in Western Sydney.¹⁶ Overall, the WSROC region has lower individual and household median incomes than the Sydney average (as shown in Figure 13), and the number of households in the bottom income quartile increased between 2001-2006. The region is characterised by clusters of relative disadvantage defined as geographical areas with a high proportion of low socio-economic households. Despite three decades of social policy intervention and programs, many of these programs have been short term and service oriented, failing to provide ongoing investment in social and physical infrastructure, and failing due to a lack of integration.

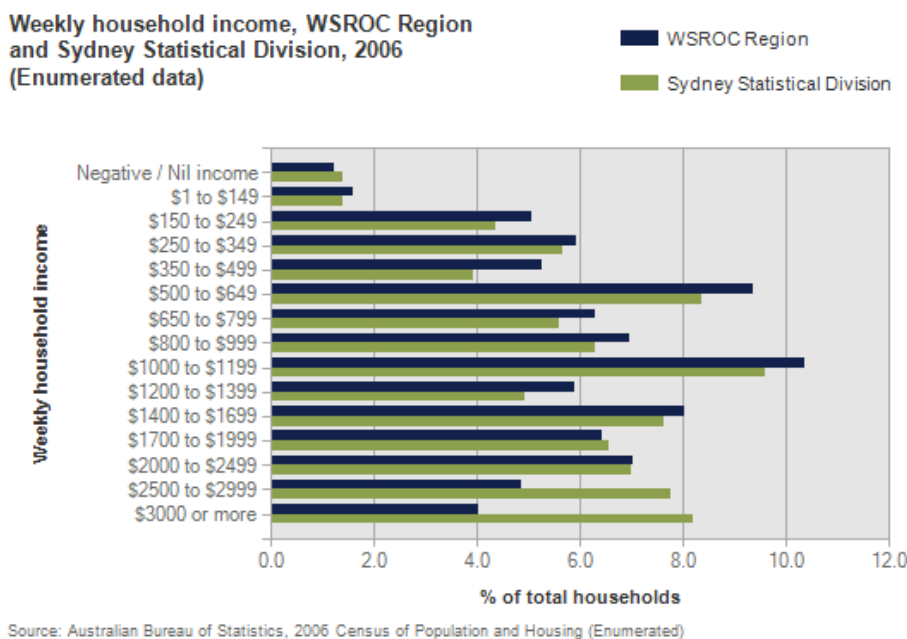


Figure 13: Weekly household income for WSROC Region in 2006. Source; ABS, 2006

The immense cultural diversity that characterises Western Sydney and the region's important role as a landing place for new arrivals to Australia is considered an asset, however, it also presents challenges for achieving inclusion and equity. Language and cultural barriers can hinder access to services, jobs and civic participation.

The WSROC region includes clusters of public housing that can be characterised by social disadvantage. However, social disadvantage is not confined to social housing. Arguably, low income households in the private rental market are at greater risk of disadvantage due to the lack of tenure security and vulnerability to increases in rent. (Randolph, Ruming et al. 2010). Newly arrived residents are further at risk due to the vulnerability caused by language barriers.

Western Sydney's legacy of three and four bedroom detached housing in greenfield development is emerging as a challenge to housing choice and affordability as household composition transforms. There is a pressing need to achieve greater diversity with infill and medium density housing and provide more housing options for particular groups with

¹⁶ ABS, 2008. Census of Population and Housing: Socio Economic Indexes for Areas (SEIFA), Australia – Data only, 2006, Cat 2033.055.001 Canberra, ABS.

emerging and distinct housing needs, such as the aged, persons with a disability, Aboriginal and Torres Strait Islanders, and tertiary students. The low density nature of the region, coupled with car-dependency and the inappropriate location of services means that many residents do not have sufficient access to a full range of social, recreational and cultural services that characterise an inclusive community.

3.7 Governance

The non-statutory Western Sydney Regional Organisation of Council (WSROC) presents a platform for local councils to discuss issues beyond their immediate LGA boundary. WSROC provides a leadership and advocacy role for the region, bringing together the ten local councils to achieve a coordinated response for regional issues. Established in 1973, WSROC has secured the Western Sydney Area Assistance Scheme, employment programs, and major health infrastructure. WSROC has recently coordinated and lead a series of initiatives including; a campaign to assist councils with vital infrastructure for residential development, highlighting the importance of securing Sydney's supplies of fresh produce, and the 'Our Water in the Landscape' project.

The lack of an overarching city wide governance structure constrains strategic decision in Western Sydney

The NSW Government is responsible for strategic decisions on infrastructure, education, health and public housing priorities. Local Councils are responsible for a range of local services and infrastructure. The lack of an overarching city wide governance structure constrains strategic decision in Western Sydney

In March 2011 the Office of Western Sydney was established as part of the NSW Department of Premier and Cabinet and is within the portfolio of the Minister for Western Sydney. The Office of Western Sydney recognises the importance of Western Sydney within the context of the Greater Sydney Region and Australia. The intention of this office is to provide advice on regional issues and deliver opportunities that benefit the Western Sydney community. The Premier, Barry O'Farrell, has announced his appointment as the Minister for Western Sydney. It is hoped that these changes provide an opportunity to create improved strategic planning for Western Sydney.

4 Ideas for a Future Directions Statement

The preceding sections highlight the challenges and opportunities facing Western Sydney and the emerging pressures that will influence the city of the future. This section looks forward to the ideas that can shape the future. The purpose of the section is to stimulate discussion about future directions and plausible futures that could position Western Sydney as one of Australia's leading city-regions in 2030

For this discussion paper we have considered a sustainability platform, informed by systems thinking, to deliver multiple and concurrent benefits for Western Sydney's ecological, societal, cultural and economic systems. Traditional modes of decision-making based on the pursuit of silver bullet 'solutions' to single issues have been shown to be problematic. A systems-thinking approach enables the complex analysis of cities, regions, resources, economies, communities and their intersections to be identified and multi-layered solutions to be considered. The benefit of applying systems-thinking provides leaders and government with a means to articulate the impacts, benefits and costs of investments in a holistic way, changing the economic paradigm and creating opportunities for new business cases.

“How can Western Sydney stride ahead, rather than just play catch up?”

The Future Directions report will set its horizon as 2030. However, to prepare for the future we must look over the horizon from 2030 and so we have also considered the challenges that 2050 might pose for Western Sydney.

This section explores six cross-cutting themes as a platform for a Future Directions framework as depicted below.

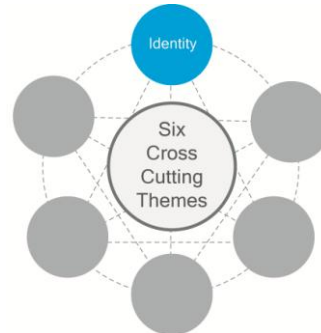


Figure 14: Six cross cutting themes for Western Sydney

4.1 Identity

Discussion

The global dominance of images of Sydney that are based in eastern Sydney including Bondi Beach, Sydney Harbour and the Opera House overshadow the identity of Western Sydney. It is extraordinary that although Western Sydney comprises the majority of Sydney's land footprint, is home for over half of Sydney's population and is Australia's third largest city, it does not have a strong identity in its own right – or comprise part of the identity of Sydney.



How can Western Sydney move out from the shadow of Sydney and gain positive recognition for the region and its communities?

The City of Cities concept, which underpinned the 2005 Sydney Metropolitan Strategy, recognised that greater Sydney was not a single city but a polycentric city made up of a number of centres, each with a relatively high level of containment within their region. The City of Cities concept sought to strengthen existing centres with local employment and regional transport networks. This remains a laudable goal. However it could be argued that the cities of Western Sydney also need to build a distinct positive identity in their own right. In the longer term this would strengthen the identity of the region within the overall City of Cities structure.

Western Sydney has an abundance of extraordinary places and spaces, rich with European, Asian and Aboriginal culture and environmental significant.

Its cultural diversity is hard to find anywhere else in the world and its population growth trajectory will continue to drive a culturally and linguistically diverse future that includes significant Australian Aboriginal communities and an array of migrant cultural groups. These characteristics are reflected in the vibrant multi-cultural main streets that characterise many of the Western Sydney cities, the huge array of food stuffs and restaurants, and creative outputs.

Environmental protection measures mean that Western Sydney will continue to harbour great ecological diversity, be a precious source of water and food for the whole city, and provide a play ground for the active and adventurous.

With a few notable exceptions such as the Blue Mountains, these attributes remain unrecognised. Instead, Western Sydney is largely known for sprawling suburbs, relative disadvantage and sensationalised stories of crime and social disorder. It is still perceived as “the edge of the city”, although physically Western Sydney, and particularly Parramatta, is actually central Sydney.

Research undertaken for this study identified that Western Sydney's negative identity remains a barrier to economic investment. A number of market sectors remain reluctant to locate to or invest in Western Sydney, despite it being home to a huge potential workforce and having significant areas of land available for economic development. Apparent low market demand and subsequent poor returns are retarding commercial

development. The exception to this is Parramatta which experienced growth of 9.5% in 2010 and is characterised by high demand and low vacancy rates. There are lessons to be learnt from the investment made by Parramatta City in attracting tenants and facilitating economic activity.

Identity: Ideas for Future Directions

1. Improving the Brand

Westerns Sydney's lingering negative brand identity must be overcome in order to attract investment and address the growing gap between residents and jobs, and the bias towards lower paid and low skilled job.

Brand marketing is one approach to building positive perceptions in the wider community by creating positive mental associations with Western Sydney. Currently the media identifies the region specifically in association with bad things that occur in the region but does not necessarily specifically badge good things from the region. There is a need to draw attention to those assets that Western Sydney brings to Sydney and for the region to claim the good stories. There are numerous assets that have resonance with different people and sectors as illustrated below in just a few examples.

How can Western Sydney forge a collective identity with which its people identify, and for which it gains brand recognition?

- Western Sydney is about tomorrow's workforce – home to half of Sydney's population, more than two-thirds of Sydney's growth and a younger population than the rest of Sydney.
- Western Sydney is the gateway to Sydney and NSW – home to Sydney's last remaining large parcels of affordable business lands and transport networks and logistics handling without the congestion and costs of the CBD.
- Western Sydney is about food –dine out on all the great cuisines of the world any night of the week.
- Western Sydney is the creative and physical heart of Sydney's arts community.
- Western Sydney is about mountains and adventure - home to the Blue Mountains, rare environments and the best walking, climbing and mountain bike tracks in Sydney.
- Western Sydney is about human service industries – home to a rapidly growing population with complex retail, health, education and service needs.

A brand campaign must be supported by investment in enabling infrastructure and in clusters of activity and high profile events that cement the brand. Priority infrastructure investment is described throughout this report, including transport, tele-comms infrastructure, commercial floor space and high quality urban environments. Investment in education and skills development is also central to this change. From an events perspective the investment may take the form of a high profile adventure race, sports competition or food or culture festival which attracts international attention.

Western Sydney needs to aim high in this regard, developing or winning events that attract global attention, hosting them in the heart of the region and branding them as Western Sydney: The Western Sydney World Cup!

2. Distinct Identities

Western Sydney is defined by a series of smaller cities, towns and communities that have unique defining characteristics. The down-side of this is a tendency towards “tribalism”. However on the upside these identities could be harnessed as the basis for developing distinct identities for each city and to create a common platform that draws from these separate identities to shape a shared regional identity.

How can the existing character of Western Sydney’s communities be further enhanced to create strong identities?

This concept would be underpinned by the development of a niche, yet inter-connected, economic profile for each city by building on existing social or environmental assets or economic activity in the region. The intent is that existing identities and businesses are evolved and grown rather than impose a new focus on the town. This idea recognises the role that existing businesses play in contributing to the economic growth of any community. It would seek to grow these with mechanisms such as business clusters, research centres, specialist education and location of government offices/departments relevant to the local economic specialty.

As the cities are renewed, they will attract additional residents and community services in addition to the niche economic activity, creating diverse, activated city centres. The growth of Parramatta as second CBD has demonstrated how this can occur. A number of potential identities are explored below.

The Cities of Western Sydney

- **The Finance and Commerce Hub:** Parramatta is recognised as the CBD of Western Sydney and has a unique character derived from its historical importance and strategic location on the river. It is already taller and denser than the other Western Sydney cities, is home to some Government and Corporate offices and is a major hub in Sydney’s transport networks.
- **The multi-cultural Hub:** Blacktown has a growing reputation for international foods and is a natural centre for growing multi-cultural foods, arts and cultural activities.
- **The Fresh Food Hub:** Penrith nestles in the foothills of the mountains, acting as a *Gateway to the West*, and being the closest major centre for the fresh food growing areas in the Hawkesbury Nepean catchment.
- **The Arts Hub:** Katoomba and the Blue Mountains have long attracted artist communities. This reputation could be enhanced to attract creative industries.
- **The Manufacturing and Logistics Hub:** Liverpool is strongly linked to the manufacturing and industrial activity in the region, being both a logistics hub and a gateway to the south east.

3. Community Pride

The evidence of success in developing an identity for Western Sydney will be when residents and business proudly identify with, and promote, their connection to the region. In time this outcome should flow from the above ideas, however enhancing local pride could also be actively facilitated to speed up the process. The success of the region in unifying around a branded identity requires a long community conversation, thought-leadership and signature events or developments that evoke community pride.

What initiatives could generate a greater sense of community pride?

The purpose of building community pride must ultimately be about displaying and conveying this pride to the greater Sydney community through engagement and connection, rather than creating an insular community.

Perhaps a regional conversation between individuals, communities, businesses and elected representatives on how the people of the region can strengthen resilience, responsibility, respect and generosity for each other and for the environment. The conversation would seek out champions and positive narratives that resonate with the community and provide a space for community leaders to articulate community messages and themes. The conversation might deliver a regional 'civic compact' that encapsulates this conversation and acts as a touchstone for regional pride, forming a strong rallying point for the region.

Engaging young people in telling the stories of their community can also be a highly effective tool for creating a culture of positivism and reinforcing a positive brand identity. This would be best achieved through contemporary media platforms such as You Tube, Twitter and emerging social media.

Finally, regional sports teams, such as a Western Sydney AFL team can also be a rallying point for community pride and collective identity.

4. Iconic Projects and Signature Events

Community identity is often augmented by symbolic and iconic physical infrastructure, such as the Opera House, Statue of Liberty, the Guggenheim Museum in Bilbao or the UK's Angel of the North, or by signature events such as the Edinburgh or Adelaide Arts Festivals or the Hong Kong Sevens. Western Sydney could benefit from a "region building" project and/or event. As a discussion starter, we have proposed a linked iconic projects for Western Sydney, drawn from projects that have strategic value, and at the same time present an opportunity to generate a strong physical symbol for the region that comprise:

- A new Agri-City at Badgery's Creek (see box on following page);
- A station for the proposed high-speed train connecting to new train links within the region and the Sydney CBD;
- Sydney's second airport with train link to the high-speed train.

It is noted that Western Sydney currently captures little value from the transport services within and across the region and the opportunity with these new projects is to create industry and logistics nodes that do create additional value retention.

Signature events identified elsewhere in this paper and through the consultation process include:

- CRAVE – an extended series of food and spice events that tell the story of Western Sydney;
- a multi-stage adventure sports race / ultra man event in the Blue Mountains;
- Sydney multi-cultural performance arts festival.

It is anticipated that alternative iconic projects and signature events will be identified through a community consultation process. It is also noted that an iconic project in itself will not reverse negative perceptions, and as such this initiative could not be taken in isolation of other broader initiatives.

A new Agri-City at Badgery's Creek?

At the point of writing, the consultant team understand that the Federal Government has commissioned a study on Sydney's airport needs, including the need for a second airport. It is expected that sites considered will include Badgery's Creek and other possible sites in Western Sydney and that a future airport may or may not accommodate passenger traffic.

We are not aware of any specific proposals concerning the future use of Badgery's Creek, but note that in 2009 the Federal Government announced the site was no longer being considered for a second passenger airport. This study therefore considered how the site, which is a significant government owned land holding strategically located in Western Sydney, could be developed to the region's advantage.

While the site contains some valuable ecological communities that must be preserved, it has served primarily as farmland since European occupation. In addition to the agricultural value of the land, the site's proximity to regional freight links, manufacturing hubs and Liverpool makes it an ideal location for a new commercial, industrial and residential centre.

With such strategic potential, there is an opportunity to match its current use with emerging challenges to strategically address higher order questions such as food security and the underrepresentation of certain employment types within the region.

An Agri-City is a term applied to the intensive application of agriculture within an urban framework. Agri-Cities are being designed and built in China to provide housing and services for workers around the perimeter of intensive agricultural production. An Agri-City model for Western Sydney would need to be developed which could balance ecological, economic, agricultural and urban demands while helping to strengthen Sydney's food security.

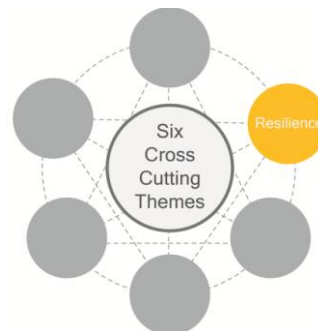
This case is further strengthened if rapid transport connecting the site into other strategic locations is considered, such as intra-regional links to Blacktown, Parramatta, Liverpool or Penrith as well as the Sydney CBD, Wollongong, Newcastle, Southern Highlands, and interstate links to Melbourne, Canberra, and Brisbane via a high speed rail (HSR) link.

The authors have assumed that at some time in the future a second passenger airport will be constructed to meet the needs of Sydney's population, and that it would be reasonable to assume this airport will be located in Western Sydney which by that time will be home to half of the city's population.

4.2 Resilience

Discussion

Resilience is a term used to describe our capacity to withstand stresses and shocks. History has shown us that cities and communities that are more economically, physically and/or socially resilient are more likely to survive and thrive in the face of change. The resilience of people and communities is particularly tested in the face of sudden, rapid and/or catastrophic change. In the context of climate change, resilience is a critical concept, linked to the impacts on infrastructure, environments, resources and personal safety. However, resilience is equally relevant to any of the drivers of change discussed in this paper.



There are already signs that Western Sydney is less resilient than other regions of Sydney on some measures:

- Western Sydney has more pockets of economic and social disadvantage and a greater proportion and number of households that are highly vulnerable to mortgage and fuel prices than the rest of Sydney.
- There are fewer jobs for working age people than in other parts of Sydney and economic and employment growth are not keeping pace with population growth.
- Western Sydney is suffering disproportionate climatic warming, due in part to urban heat island effect, with health and comfort consequences for residents.
- Western Sydney is home to highly vulnerable remnant ecological communities and the habitat for these communities is under increasing pressure from development, fragmentation and predators.
- Western Sydney is less connected by public transport than many other parts of Sydney. Residents are therefore more dependent on their cars and travel longer distances.
- Western Sydney is highly vulnerable to alluvial flooding from storm events, as well as vulnerable to higher rates of evaporation and urban salinity in the increasingly hot environment.
- Western Sydney includes large areas of bushland which are currently vulnerable to bushfires and which may have increased frequency and intensity with climate change.
- Climate change projections also impact on air pollution and health, with ozone pollution events linked to the frequency of hot, sunny days. Modelling by the CSIRO indicates that large areas of Western Sydney are likely to have increased vulnerability to ozone pollution.

A business as usual approach to development will not overcome these threats.

Individual vulnerability does not directly translate to community vulnerability, which is a function of risk, adaptive capacity and, importantly, social capital, and can overcome individual vulnerabilities. In this light, Western Sydney has the following characteristics that could enhance its resilience:

What resilience does Western Sydney currently exhibit?

How can this resilience be enhanced?

- Strong sense of local identity underpinned by lively, connected local communities;
- Approximately 12% of the population engage in volunteering activity (ABS, 2006);
- A young and diverse population relative to the profile of the rest of Sydney;
- Limited exposure to sea-level rise;
- Strong manufacturing base and land for expansion of this activity in some areas;
- Sydney's 2nd CBD at Parramatta;
- Water and arable land suited to food production;
- Protected areas with high biodiversity value.

Resilience: Ideas for Future Directions

1. Adaptation and Mitigation Projects

Development of a comprehensive mitigation strategy requires a detailed understanding of the threats to resilience posed by climate change, resource depletion, population ageing, and health and the other 'city forces', as well as the vulnerabilities of the community, environment and infrastructure. This work represents a current gap in knowledge.

However we have enough understanding of national and global trends and the Western Sydney region to predict some of the challenges facing the region. At the most basic level, resilience can be improved by reducing the magnitude of the threat through physical interventions. In Western Sydney this might include:

Can the impact of future threats in Western Sydney be reduced?

- flood levies for flood-prone areas;
- greening strategies to reduce urban heat island effects and combat urban salinity;
- detention basins and off-stream water storages to recharge water tables; provide access to water for landscape in dry periods, manage stormwater and add to flood mitigation;
- fire management regimes;
- local food production and supply networks;

- investment in public transport and local jobs to mitigate the risk of fuel poverty in the event of peak oil or carbon pricing; and
- investment in renewable energy infrastructure.

Bringing this together creates a picture of an environment that has more greenery and more urban water, that includes community gardens and markets, is accessible to pedestrians and cyclists and includes highly visible renewable energy projects. This work would assist in positioning Western Sydney as a leading sustainable city and development of local solutions would create exportable expertise and support development of green industries.

2. Social Capital

Social capital is defined as the productive benefit derived from social networks. Communities that are high in social capital will be characterised by a diversity of active and well-supported clubs and organisations, and a significant number of daily transactions undertaken locally. Communities with high levels of containment for jobs, education and essential services often exhibit higher levels of social capital due to the number of local transactions that occur on a daily basis.

What is the existing social capital in Western Sydney?
Can it be increased?

The evidence of disaster affected communities is that communities with good social capital are more likely to function effectively in the aftermath of rapid change or a disaster. This is due to the existence of robust and interwoven social networks that enable people to assist each other and access external help effectively. Social networks also usually result in communities being better informed, although they can also contribute to misinformation.

It is argued that community resilience emerges from four primary sets of adaptive capacities—Economic Development, Social Capital, Information and Communication, and Community Competence.¹⁷ Arguably, resilience is also time dependant. Community resilience in Western Sydney can therefore be enhanced by:

- Investing in local economic activity to generate more local employment and trade;
- Reducing vulnerability, including the duration of vulnerability, arising from risk through mitigation;
- Engaging residents in planning and implementing risk management and mitigation responses;
- Improving access to resources and support services;
- Strengthening the linkages between community networks and support providers;
- Fostering more training and employment opportunities in the region to retain local capacity and enhance local economic and intellectual networks;

¹⁷ Community Resilience as a Metaphor, Theory, Set of Capacities and Strategy for Disaster Readiness. Norris, Stevens, Pfefferbaum, Wyche and Pfefferbaum, American Journal of Community Psychology, Vol 14.

- Creating durable local communication systems;
- Providing access to reliable information; and
- Building a network of trusted informants across all cultural groups and societal strata.

Whilst a number of the initiatives proposed in this paper would deliver these outcomes as co-benefits, a specific focus on the development of social capital as a spin-off for all projects is required.

3. Economic Resilience

What existing assets can the cities of Western Sydney draw on to build economic resilience?

Economic resilience requires diversification and connectivity. As discussed previously in this report the economy of Western Sydney can be diversified by fostering the development of a niche economic profile for cities within Western Sydney building on existing social or environmental assets or economic activity in the region, but responsive to global trends and needs.

The success of this approach is dependent on the strength of synergies and connections between these activities within the region, greater Sydney and global markets. Shared regional goals, such as focus on green/sustainable businesses should also underpin this initiative.

Initial investment to build economic resilience may include incubators, business clusters and small research centres, potentially delivered with a development authority or enterprise corporation model. In time, the economic specialty would be under-pinned by course offerings at university campuses in each city and co-location of relevant government offices or departments.

The economic resilience of individuals and households can also be developed by enhancing employment related skills, making people more adaptable and flexible to respond to changing economic circumstances and emergent job opportunities. Improved access to education is key to achieving this outcome.

Looking forward, the benefits of consolidating economic development and activity across a number of Western Sydney cities are numerous. The network of niche economic centres (eg Business in Parramatta, manufacturing in Liverpool, Agri-city at Badgery's Creek etc) would deepen the economic resilience of the region and provide greater job choice, diversity and security for residents living across the region. Relationships between the economic centres would build the business case for investment in connecting infrastructure and the resulting population centres to support more efficient public transport between the cities. Linkages between universities, research centres of excellence and businesses will generate innovation.

More compact development forms in the heart of each city can assist in managing growth, increasing housing choice and affordability and meeting the accommodation needs of an ageing population. Greater proximity between housing, jobs, public transport and community services can reduce social isolation and disadvantage and provide greater resilience in the face of rising fuel prices.

4. Security of Supply Chains

Traditionally, systems of supply have relied upon constant supply through established supply chains, supported by short-term and emergency storage. Breaks in systems of supply can occur when physical infrastructure is disrupted or when the supply source is disrupted. The flooding that occurred in Brisbane in 2011 provided a timely reminder that cities can be struck to their core by extreme events and emergencies.

Supply chains are particularly vulnerable to breaks in supply when they rely upon a few sources for supply, when the methods of supply lack diversity, or when the physical supply chain is long. A lack of local supply options or distributed supply will also compromise the resilience of any supply chain.

An assessment of the relative vulnerability of Western Sydney to supply interruptions has not been undertaken for this paper. A strategic supply assessment is recommended, including consideration of the capacity for supply to be supplemented within the region and for supply sources and methods to be diversified.

**Can Western Sydney
reduce the length and
vulnerability of its supply
chain for essential goods
and resources?**

The assessment would include consideration of the number of day's supply of fresh and preserved food in storage within the city, and essential fuels. It would also address the vulnerability of the electricity, water and wastewater grids to outages, brown-outs and total failure in the event of a disaster, and options to augment or circumvent these systems in the event of failure. The assessment would also consider the potential for communities within the region to be 'stranded' by supply interruptions, including whether particular communities would be stranded by extreme events such as flooding or fire and whether there are some communities that are already under-served locally and so particularly vulnerable.

Reduction in supply chain vulnerabilities will provide opportunities for new economies and can address some of the other issues identified. Examples of solutions and their co-benefits are described below.

- Disruption of transport networks can quickly interrupt food supply. However, Western Sydney is well placed to localise food production and supply networks to reduce this vulnerability. This initiative would also generate a new fresh-food small business sector and increase the supply of fresh food with subsequent health benefits.
- Centralised infrastructure, including power, water and sewer, is vulnerable to disruption as a result of extreme weather events. This vulnerability can be reduced by the introduction of decentralised systems, including distributed energy and water networks and neighbourhood level wastewater management.
- Disruption of both transport networks and essential services can cause businesses to shut down causing consequences for economic viability, workforces and the communities who rely on the service outputs of the business. Decentralised infrastructure and the use of local workforces can reduce this vulnerability.
- Manufacturers are often heavily dependent on external inputs and accordingly are vulnerable to disruption in services and transport. Industrial symbiosis seeks to co-locate activities that can share resources, particularly those that can utilise waste outputs. Industrial symbiosis has the potential to optimise resource inputs

and outputs across industries and businesses in Western Sydney, delivering improved local resilience, cost benefits and opportunities for innovation.

It is envisaged many more solutions will emerge from the proposed supply and vulnerability analysis.

5. Doing More With Less

Supply security will also be impacted by potential shortfalls that are of a more permanent nature, such as the predicted decline in the availability of fuel and impacts of a carbon price. A suggested action hierarchy to respond to these limitations is:

1. Improve efficiency (do more with less);
2. Avoid (design out the need for the process or product);
3. Switch (replace the product with another);
4. Transform (redesign the system of provision to dramatically change the way in which the need is shaped and is being responded to).

Can Western Sydney use its resources more efficiently and effectively?

This hierarchy can be applied across the region to identify innovative and robust solutions for responding to anticipated resource shortages. Often the identified solutions will deliver co-benefits such as greater economic resilience and new business opportunities. By way of example, vulnerability to reduction in petrol supply in Western Sydney can be mitigated in the following ways according to the hierarchy:

1. Improve vehicle efficiency, resulting in lower operational costs;
2. Avoid the need for trips by moving jobs and services closer to where people live, reducing travel time and costs and improving social capital;
3. Replace fossil fuels with low carbon alternatives such as clean-source electric fuels, creating new industries and utilising waste products effectively;
4. Transform transport infrastructure with improved public transport options, electric vehicles, active transport infrastructure, fast trains and greater levels of containment in the cities of Western Sydney.

The process of identifying reduction actions is more effective if done through a bottom-up rather than top-down process. Engaging the community in determining strategies to 'Do More with Less' would build greater community awareness of the constraints facing the community and would assist in building social capital and resilience. A community led approach is also more likely to generate innovative, regionally specific responses.

6. Environmental Resilience

How can Western Sydney both protect and leverage its environmental values to improve resilience?

There is still inadequate understanding of the potential impacts of climate change on the biodiversity values of Western Sydney. However, in areas with high environmental values and refugial populations, such as the Blue Mountains and Hawkesbury, climate change poses a significant risk. These impacts are significant for the well-being of the whole region because of the valued gained from the

environment in Western Sydney, including water catchments, agricultural land and the tourism industry that is associated with scenic values of the area.

Research is required to understand the threats posed by climate change and other pressures on environmental values of the region. Following this research, it will be possible to plan mitigation measures. Research from other biodiversity hot-spots suggests that mitigation strategies may include:

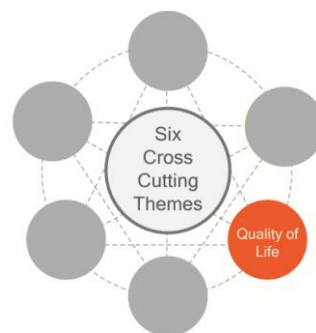
- Development of habitat corridors and refugial areas that allow species to migrate;
- Implementing protected areas for habitats that are particularly at risk and even strategies for migration of habitat or regeneration of habitat in areas that may be more favourable in a changing environment;
- Retaining land for agricultural production and water storage; and
- Understanding and planning for potential habitat adaptation and change.

The outcome of such responses is entirely consistent with the suggestions at Item 1 of this Resilience discussion – creating a greener region and will have economic and social benefit, as well as environmental.

4.3 Quality of Life

Discussion

Western Sydney has many assets that can offer a high quality of life for residents: strong communities, local towns and cities, high quality natural environment, open space and recreation areas and typically lower costs of living, to name a few¹⁸. In short the ability to live, work, learn and play within the region. People who have financial and tenure security and are able to work or study in the region tend to enjoy the high quality of life these attributes offer.



However, this paper has also demonstrated the prevalence of conditions that would detract from a high quality of life for a significant number of residents in Western Sydney. These conditions include limited access to employment and skilled jobs, low workforce participation, extended commuting times to jobs and higher education, inadequate transport infrastructure, fewer outlets for creative arts and cultural expression, vulnerability to rising fuel prices, poor health, and insufficient community services. For newly arrived migrants, language and cultural barriers may exacerbate the impact of these conditions.

How can Western Sydney enrich the lives of its residents?

The Future Directions identified in this paper seek to overcome the structural, spatial and organisational barriers that reinforce social disadvantages, with the intention of improving the overall quality of life for Western Sydney residents. The challenge is to harness the opportunities generated by economic growth, infrastructure investment and upwardly mobile sectors of the community to improve well-being and enrich lives across the region.

Quality of Life: Ideas for Future Directions

1. Increase Employment Opportunities

Increasing the range and number of jobs available within the region will provide greater opportunities for residents of Western Sydney and can reduce the time and costs associated with travel, resulting in positive outcomes for individual and their family units. The proposed strategies to develop economic hubs in the cities of Western Sydney will contribute to this outcome. It is envisaged this may include the development of business or technology parks, with links to universities that attract clusters of related businesses.

A key focus needs to be on creating a greater diversity of job options, including professional jobs and jobs in the creative sectors, breaking away from the current tendency towards manufacturing and low-paid service industries. Again, increasing the presence and profile of tertiary institutions engaged in teaching and research is essential to achieving this outcome. Improved and diversified education opportunities will also

¹⁸ In the context of this paper Quality of Life is defined as good health, equitable access to resources and opportunity, housing and transport affordability, social inclusion and work-life balance. It does not reflect more material measures such as size of house and land, value of assets and the like.

produce a diversified workforce. The relationship between education and employment opportunities can in many ways be seen as symbiotic. A review of university places per capita in Western Sydney demonstrates the need for vastly increased access to university facilities in Western Sydney to increase the pool and depth of workplace skills that will attract employers. In turn, the presence of more blue chip employers will generate additional university demand. This discussion paper suggests incentives could be used to grow UWS and/or attract other universities to invest in larger and better resourced campuses in Western Sydney.

Another challenge for Western Sydney is to effectively engage the long term unemployed with meaningful work, thus harnessing this currently untapped resource and addressing a level of entrenched socio-economic disadvantage. Improving the workforce participation of the long term unemployed represents an investment in future generations, as longitudinal studies have shown that long term unemployment is a key determinant of inter-generational unemployment. Local and individual solutions are needed to tailor employment opportunities to provide greater avenues for the long term unemployed.

What can be done to assist long term unemployed to find and keep meaningful employment?

2. Healthier Communities

There is a growing body of evidence that the planning and design of cities is contributing to poor health, and that good design can support healthier outcomes for residents. Good design has been shown to deliver improved air quality, greater access to fresh food, more opportunities for informal social interaction and increased levels of incidental physical activity. The experience of cities around the world is that the impact of a seemingly small intervention in a city, such as a well designed pedestrian and cycling network, can be profound.

What design solutions could improve the lifestyle related health of Western Sydney residents?

Ideas for healthier cities are not stand-alone solutions but are typically achieved through adopting a particular design approach to delivering other outcomes. For example, car dependency has been identified throughout this paper as a significant threat to the future well-being of Sydney. Car dependency impacts on health by contributing to poor air quality, reducing personal activity levels, exacerbating vulnerability to rising fuel prices, increasing use of drive-through or take away food outlets and increasing the risk of personal injury.

Considered design of public transport solutions, therefore, provides an opportunity to not only reduce congestion and car dependency but also deliver positive health outcomes. For example:

- Public transport stops and stations, and associated parking facilities, can be sited so that patrons must walk between the parking area and public transport facility;
- Safe cycling and pedestrian paths can be constructed within a 800m diameter from the stops and stations to encourage non-car based travel to public transport;
- Fresh and health food outlets can be give priority in the vicinity of public transport stops and stations; and

- Affordable pricing of transport can be adopted.

Similar thinking must be applied to all city design and planning to maximise opportunities to create more active communities, improve access to fresh food and create a safe urban environment. Areas of opportunity include:

- Food – local production, processing and distribution = jobs and food security; local purchasing = more affordable, fresh food, healthier eating practices; vibrant restaurant scene = jobs, social engagement and visitation.
- Healthy housing – renovation of housing = jobs, improved housing stock = reduced operational costs and improved health outcomes.
- Community health services / local partnerships = jobs, access to affordable health services, community participation in health issues.

Arguably any activity or intervention in Western Sydney should consider opportunities to contributions to a healthier community.

3. Participation in Sport

A review of land use in Western Sydney demonstrates that the area is well endowed with sports fields and recreation areas, including the world-class venues which comprise Sydney Olympic Park. However, the extent to which these facilities are physically, economically and culturally accessible to a broad section of community has not been determined.

Sport is an important plank in strategies to improve community well-being. Playing sport improves health. Engaging children in sport from a young age reduces the likelihood of childhood obesity and builds lifelong behaviours. Participating in a sports club builds social networks and capital.

We know that global sporting events and the success of local teams result in spikes in the uptake of sports. Western Sydney could invest in identifying and promoting the 'local heroes' who compete on the national and global stage and seek out opportunities to host nationally and globally significant sports events.

It is also recommended that an audit of access to sports facilities be undertaken to understand the match between available facilities and community needs. The intention would be to maximise utilisation of sports facilities by overcoming barriers to participation.

4. Creative Arts and Cultural Expression

Despite its great cultural diversity, Western Sydney remains under-represented in the areas of the creative arts and cultural expression. Since launching the Strategy for the Arts in Western Sydney in 1999, the State Government has committed over \$20M to arts development in Western Sydney. However, this does not represent a pro-rata investment on a per capita basis. It remains the case that few of Sydney's significant art galleries, museums or performing arts spaces are located in Western Sydney, although increasingly Western Sydney venues are being included in festival programs.

**How can
Western Sydney
get access to its
fair share of arts
and cultural
events?**

This is not to say that Western Sydney does not have a creative community. Rather, the combination of cultural richness, diverse and sometimes challenging life stories and inspiring natural environment generate a wealth of creative output. The quality artworks and performances that have emerged from the C3West Program¹⁹ are just one evidence of this talent. The work achieved under this program demonstrates the capacity of the arts community to play a leading and proactive role in building a positive future for the region.

A 2009 survey by Arts NSW identified that barriers to audience participation in the arts in Western Sydney included pricing, safety, work and family commitments, and cultural relevance. Clearly, solutions are required at a multitude of levels to deliver cultural infrastructure that meets the needs of the growing region.

In the past decade investment has focussed on developing the capacity of cultural organisations and individual artists; creating small to medium size local venues for work, exhibition and performance; and engaging local governments in planning and investment for the development of the arts sector.

The experience of global cities is that fostering community creativity at a grass-roots level can spearhead urban and community renewal projects. Adelaide's Rundle Street, Melbourne's much lauded laneways and more recently the renewal of Newcastle have all benefitted from the momentum generated by community arts initiatives. Western Sydney can learn from this national and international experience to create spaces that can be occupied and shaped by grass-roots artists. This may include making empty or under-utilised spaces available at no or low rent and encouraging public arts interventions in public spaces in need of revitalisation. Arts NSW's Empty Spaces program and network of Creative Enterprise Hubs are potential vehicles for facilitating these outcomes. This program has commenced in some centres in Western Sydney and could be expanded.

At the other end of the scale there is a longer term need for larger high quality venues, such as a gallery that holds a high quality permanent collection (potentially shared with other Sydney galleries) and has capacity to host international travelling exhibitions, a contemporary museum and a performance space with sufficient spaces and flexible venues to attract an array of national and international performances. A festival program that is hosted by, and unique to, Western Sydney, particularly a celebration of multi-cultural attributes, food or the natural values of the region could complement these initiatives.

The space in between the grass-roots initiatives and large scale venues includes smaller private galleries, community performance spaces and local festivals and events. It is this space that funding has been directed to in the past decade. It will continue to be filled by small business owners, community groups and local councils. However their endeavours and investment will be enriched and improved by investment in the other initiatives discussed above.

5. Housing Choice and Affordability

For many years Western Sydney has been typified by detached housing in greenfields estates. First fibro and tin, and then brick and tile, dominated the landscape. Cost

¹⁹ Since 2006 the C3West program has been commissioning artists to collaborate with businesses and communities in Western Sydney to produce artworks with educational, environmental and social outcomes relevant to the region. C3West is a collaboration of Museum of Contemporary Art, Sydney; Campbelltown Arts Centre; Casula Powerhouse Arts Centre and Penrith Performing and Visual Arts, Penrith.

pressures mean many of these houses perform poorly when assessed against modern efficiency standards. And while they met the needs of Australia's five-person nuclear families of the latter 20th century, the housing stock does not provide enough choice for the diverse household compositions of this century.

On average, Sydney's households have decreased in size to some 2.1 people per house, a reduction of more than 50% over a few decades. However, this average is patently inadequate to describe the diversity that is Western Sydney, where households may range from large multi-generational families to single person households. Clearly, this requires houses that are both bigger and smaller, and housing forms that can be adapted to meet evolving household needs.

How can Western Sydney provide more affordable and sustainable homes?

Demographic data suggests there is an urgent need for smaller, medium density housing solutions, located close to transport and services to meet the needs of an ageing population and provide attractive options to retain young people. Co-benefits of facilitating higher density solutions in city centres increased economic activity and activation of the public realm, and a greater uptake of public transport services.

The growth targets in the Metropolitan Plan for Sydney 2036 of 770,000 new houses, including 181,000 dwellings in in-fill areas, provide opportunities to rapidly diversify the housing stock. However, research undertaken for this project suggests there are economic and tenure barriers to developing affordable high density housing in Western Sydney. Three mechanisms that have been used to overcome these barriers in other locations have been identified for further consideration in Western Sydney:

- Local and State Governments have established companies with the charter of delivering affordable housing in inner city areas. Two successful Australian models include the Brisbane Housing Company and City West Housing. There are numerous such companies in the UK.
- In 2010, the Federal Government provided funding for the construction of essential infrastructure that would enable residential development in regional cities, such as sewer upgrades, additional water storage capacity and bridges and road infrastructure. Similar funding augmentation may be required in Western Sydney.
- Several cities have created Urban Development Authorities with powers to implement coordinated renewal projects in urban areas. The more effective of these authorities have the capacity to purchase, consolidate and reallocate land holdings. The authorities can offer scale benefits for expensive development activities such as land rehabilitation. A Development Authority may be a useful mechanism for Western Sydney.

Arguably, interventions that will increase the residential and job density of the towns and cities of Western Sydney require urgent attention in order to address the crisis in housing affordability, and growing gap between population and job opportunities.

As discussed elsewhere in this paper, consideration of housing affordability must also address the cost of living. Long-term housing affordability is dependent on affordable access to services, particularly the provision of public transport.

Housing affordability is also increasingly dependent on the efficiency of homes in terms of energy, water and other consumables. Projects to improve the efficiency of both new and existing housing stock in Western Sydney are essential to securing an affordable future. The efficiency of new housing should be achieved through compliance with the energy efficiency provisions of the Building Code of Australia, although investigations may be appropriate to determine whether these standards are delivering the desired outcomes in the climatic and social context of Western Sydney. Facilitation of signature green housing areas is recommended to encourage community uptake of more sustainable housing models. Initially this could be sponsored in areas such as Hawkesbury where environmental and infrastructure constraints demand such as response, but in time this program could be expanded to more urban centres.

Improvement to existing houses are dependent on programs to encourage housing upgrades, such as the failed Home Insulation Scheme and more successful rebates for efficient appliances. It is recommended that a housing and building renewal program be devised to improve the sustainability of existing building stock in Western Sydney.

6. Local Solutions

Efforts to improve quality of life and enrich communities are generally more effective when delivered from a community base rather than a top-down model. Any investment in Western Sydney should therefore consider options to foster local solutions.

How could a neighbourhood fund be best structured to stimulate local social enterprises?

Social enterprise is a term that describes businesses and enterprise models where the primary purpose is to deliver social good, generally within a not-for-profit framework. Incorporating contemporary marketing and business frameworks, social enterprise act to lever significant value from investment funds, community goodwill and individual commitment to deliver greater benefits back into the community.

There is merit in strengthening access to local funding for projects that use a social enterprise model to deliver local benefits that align with the region's strategic objectives and meet local priorities. This could occur through establishing a comprehensive neighbourhood funding strategy that supports social entrepreneurship and can meet small-scale, one-off start up costs. This could be in the form of revolving funds. There may also be a case for a regional investment fund which levers capital funding for catalyst projects which, over a project life cycle, will have a positive return.

In the UK, local authorities are now responsible for convening Local Strategic Partnerships (LSP), comprising of key service providers and community organisations. The LSP agrees local priorities and funding, and national priorities are linked to key local targets for closing the gap between the most disadvantaged and the population average through Local Area Agreements. Strategic commissioning of services by LSPs can also include brokering a range of services for individual households as well as systemic interventions within communities.

By setting local targets linked to funding outcomes, accountability can be directly linked to resourcing and to outcomes for communities and families in need²⁰. Floor targets can include, for example:

²⁰ DCLG 2011 Strategic Commissioning for place shaping
<http://www.communities.gov.uk/archived/general-content/corporate/researcharchive/volume1/>

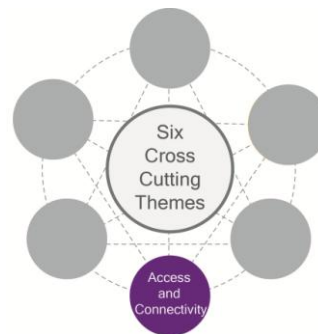
- Reducing rates of teenage pregnancy;
- Reducing the number of workless households;
- Improving childhood literacy and numeracy;
- Reducing childhood obesity; and
- Reducing the rate of homelessness.

This model requires local service providers to work together to find the most effective solutions on a case by case basis for the most disadvantaged households, including the long term unemployed and migrant households. This approach requires a regional understanding of where this level of targeted intervention is needed most, and a carefully planned locally coordinated and measured response to follow.

4.4 Access and Connectivity

Discussion

This section is concerned with the provision of access to services and opportunities, which should not be confused with transport. Transport is merely one means of achieving the ultimate goal of access. Transport that is in the wrong place or operating at the wrong time fails to facilitate access. Other solutions such as communication technologies (or even walking) can also achieve access.



This is not to deny that poor and inadequate transport is not a barrier to access in Western Sydney or that additional transport infrastructure is required. However identification of the best solutions must be determined by the type of access required to reduce social disadvantage and improve access to opportunities for Western Sydney residents.

Western Sydney's growth trajectory requires a comprehensive approach to ensure that people are adequately connected to jobs, services and communities. Yet, we know that the region is unlikely to change its urban form to such an extent that deeply networked public transport is equally available and accessible at all points across the region or that all residents will have equal access to local services. A multi-staged approach, encompassing public transport, private vehicles, people power, communication technologies and flexible service delivery models is therefore required. This approach recognises that no single strategy will resolve the access challenges posed by Western Sydney's structure. It also recognises that in future-proofing the region for significant resource constraints, solutions must be realistic with some short and long term goals.

The overarching future direction is to plan and fund communication and transport networks that facilitate greater access to jobs, education, services, the arts and active recreation, particularly within the region. Enabling infrastructure and catalyst projects are described below.

Access and Connectivity: Ideas for Future Directions

1. Jobs and Services in Regional Centres

The single biggest impact on reducing travel by private vehicle will be to further concentrate employment and industry within existing centres where public transport routes are already present, and which can be enhanced over time. This correlates with the earlier strategy to create niche economic focuses in each city of Western Sydney. However, the encouragement of more jobs in regional centres should also include the decentralisation of social services, government agencies and service industries across the region such that community members can access these services in the nearest local city.

2. Creating the Missing Transport Links

Improved public transport outcomes are dependent upon the completion of two planned rail links, North West and South West Rail Links, and the development of an orbital link joining the North West and South West Rail Link. This could traverse a future centre at Badgery's Creek, and potentially act as a rail interchange for a high speed rail station located at Badgery's Creek or an existing centre in Western Sydney. The opportunity to link to a high speed rail network greatly strengthens the region's role as a gateway and would focus activity around a future high speed rail station.

The Rivers are another potential transport corridor and mode that is underdeveloped in the region. They have the potential to reduce road and rail congestion and offer sustainable transport alternatives.

Additional freight will also require transport and this is likely to require an orbital road link to be built or enhanced.

Finally a second Sydney airport is part of the transport solution for the whole Sydney region. Either a freight airport or second passenger airport would provide an economic boost to Western Sydney and resolve air transport issues for the region.

The biggest barrier to delivering major transport projects is the capital cost of the project. In recent years Australian Governments have preferred PPP models of delivery that ultimately shift the cost to the user. Research commissioned by WSROC demonstrates that ultimately this model delivers returns to private interests rather than the community. Alternative models of funding are required that retain ownership and long term profits in the community. One funding model is to realise the uplift value of land that benefits from the investment, currently this benefit is largely realised by private land holders. This value uplift can be achieved through the creation of a development authority or a new taxation mechanism where capital gain is achieved due to public investment.

3. Embracing the Digital World

For the first time, the 2006 Census indicated a measurable trend towards home-working in Western Sydney. Working from home (or locally) offers benefits over commuting long distances at both a personal and community level. Reduced travel times, traffic and congestion are the more commonly listed benefits; others include use of local shops and services, development of local networks and social capital, and more personal time for exercise, family or volunteering.

Yet working from home can be socially isolating and is only available to those with a home environment supportive of such practices (i.e. access to high quality internet and a quiet space in which to work) and/or a trusting employer. Western Sydney has the lowest rate of internet access in Sydney and therefore many residents would be excluded from this opportunity.

To provide greater flexibility for more people, strategies to enhance the capacity for people to work locally are needed. One such option is the development of local office hubs with essential tele-working facilities (computers, desks, phones) that can be rented by the hour or day. Providing greater wireless capability within village centres can also assist people working from home to work in informal spaces such as cafes and libraries on days when circumstances prevent them from being able to attend the office.

Smart technology will make these more flexible arrangements more easily achievable. Urban informatics can support the connectivity of people to information and to place in a range of ways, not simply through office communications but in relation to transport, the public realm and via mobile communications.

4. Smaller, More Efficient and Fewer Vehicles

Congestion is a significant barrier to productivity. As more people move into Western Sydney, its main transport routes will become more congested. One way to slow this impact is for there to be a regional strategy for reducing the average size of private vehicles, such as pricing incentives or disincentive. This strategy will have the benefit of reaping the carbon benefit of improved vehicle efficiency and at the same time future-

proofing residents against oil price hikes. This strategy can only ever be a complementary measure and certainly will do nothing to change the number of people driving. It will, however, help to ameliorate the impact of private vehicle movements.

Levels of car ownership per household are continuing to rise in Western Sydney, which is a reflection of the number of people of driving age, the high level of car dependency and the increasing affordability of cars relative to income. The predominance of detached houses and private yards provides little opportunity to control car ownerships rates through parking controls, as has been done in inner city areas.

**What strategies
can Western
Sydney adopt to
reduce
congestion?**

Successful measures to reduce car ownership must occur in parallel with improved public and active transport options. Once these are in place, disincentives for driving and parking cars will lead to people driving less and may ultimately result in people choosing to own fewer cars. This has been the case in Vancouver, where no new freeways have been built in 30 years and substantial investment has been made in public and active transport instead. The result has been a decline in rates of car ownership.

It is highly likely that in the longer term, Western Sydney will need to make dramatic interventions to reduce its greenhouse gas emissions, and the introduction of a carbon tax may bring this horizon forward. As the transport burden will continue to be a significant contributor to the region's carbon footprint, considering ways in which vehicles can be powered from clean sources will be a vital task. The electric vehicles industry is gathering speed, however does not become part of a carbon reduction solution until the power grid is substantially decarbonised. Western Sydney's contribution to this task is potentially threefold:

- Enabling electric vehicle infrastructure throughout the region, via recharge stations;
- Incentivising investment in electrical vehicle components and infrastructure through the local manufacturing industry; and
- Assessing opportunities for base load power contribution from renewable sources within the region (for example through concentrated solar thermal and storage).

5. Creating Service Efficiencies

Lower density patterns of development create challenges for efficient delivery of services and resource use. For example, more land is given over to roads and more linear quantity of infrastructure is required per capita in lower density development. Shops and services will also be more sparse on a per-hectare measure because of the reduced catchment. In-fill development and/or pockets of higher density mixed use can alleviate some of these issues, improving the efficiency of new and existing infrastructure and access to services.

The impact of density is perhaps most evident in relation to transport services. Research indicates that the required population density to support efficient public transport services is at least 70 persons per hectare. With the exception of centres such as Parramatta and Blacktown, Western Sydney's density is likely to remain lower than this for the foreseeable future. The challenge is, therefore, how to attract enough people to central transport nodes to justify the kind of service frequencies, which in turn attract and retain more users.

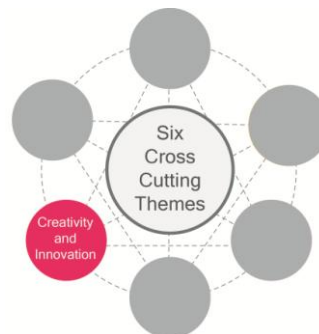
This paper proposes the development of medium density housing, jobs and services in Western Sydney's city centres that will boost population in the immediate vicinity of transport nodes. In essence this development model will create a network of transit oriented developments across Western Sydney, underpinned by the renewed cities but remaining a catchment for outlying suburbs and towns.

'Park and ride' facilities will remain critical items of infrastructure within this development model. Current models of 'park and ride' development tend to miss the opportunities for local businesses to capture economic value from the people using public transport. An alternative to this problem is to locate park and ride facilities within a slightly longer walk of rail and bus stations (not more than 400m) and allocate land between the car park and transit node for retail outlets and service providers. Co-benefits of this approach are that local residents may be discouraged from driving to the stations, and all users will benefit of a small amount of daily walking.

4.5 Creativity and Innovation

Discussion

A number of analysts believe that we have reached a set of ‘tipping-points’ where we are no longer able to repair or reverse global trends in resource depletion, health and wellbeing and in climate change. While this is a pessimistic view, it highlights that the window for action is extremely narrow and closing as each year goes by. It also highlights the need and opportunity for creative and innovative solutions. Arguably, communities that are able to innovate will be best placed to respond to the challenges of the Ecological Age.



One analysis, by Peter Head²¹, notes that for the needs of the population²² to be met, the planet to be able to function within its limits, and the challenge of climate change to be overcome, we need to dramatically reduce both our ecological and carbon footprints and at the same time, improve the livelihoods of those people who remain in deep disadvantage. This requires transformative shifts that allow us to radically reduce our consumption of planetary resources (including ecological communities and systems). Head calls this future the Ecological Age; a future in which technology, innovation and transformation combine to meet these tremendous constraints.

The opportunity for Western Sydney, with a large population, availability of business lands and excellent inherent environmental resources, is to become a leader and expert in the new economies and approaches demanded by the Ecological Age proposition. Investment in fostering creativity and innovation now will position Western Sydney to seize this opportunity.

Creativity and Innovations: Ideas for Future Directions

1. Research Centres of Excellence

Each of the proposed niche economic centres in Western Sydney would benefit from investment in a research centre of excellence that is tasked with exploring options for that sector to maximise efficiency, utilise new energy sources, exploit opportunities for industrial symbiosis and innovate ahead of the competition. It is proposed that a number of research centres of excellence could be developed in partnership with universities to support the evolution of key Western Sydney industries towards the Ecological Age.

How can decision-makers be equipped to make the necessary whole-of-city decisions in the next 5 years?

These multi-disciplinary centres of excellence would attract research investment and kudos for Western Sydney universities. The centres could also act as business incubators to mentor and support the development of new business and industries in association with the emergent

economic focus, and to assist business to take innovation to market.

²¹ P Head 2008 Towards An Ecological Age – An Engineer’s Role

²² The global population is predicted to be 9 billion by 2050.

This discussion paper has identified a number of areas critical to the future of Western Sydney that are not yet well understood. A “*Western Sydney Centre of Futures Research*” could fill the gaps in current knowledge, continue to scan for upcoming issues, and build the knowledge required to respond to the challenges ahead.

2. Low-carbon Solutions

A carbon constrained future presents opportunities for business, technology and agricultural innovation. With a strong manufacturing base, good solar resource, arable land and significant waste streams, Western Sydney has ample opportunities to engage in the generation of low-carbon energy, the design and manufacture of new technologies and restructuring of existing manufacturing processes to suit new conditions and market demands.

Initiatives that can contribute to this outcome include:

- Research into low energy and low greenhouse gas (GHG) manufacturing processes through the industry clusters in partnership with the proposed research centres of excellence;
- Pioneering of industrial ecology and less carbon intensive agricultural solutions;
- Developing carbon sinks in forestry or agriculture projects;
- Innovative finance/taxation structures that enable business and industry to pay-off the capital costs of restructuring via savings in operational costs;
- Investment in renewable energy solutions, including large scale solar power generation plants, wind power installations (if suitable sites exist), and extraction of biogas or fuels from agricultural and urban green waste;
- Investment in smart grids and distributed power generation;
- Upgrading broadband capacity to facilitate home working and home shopping solutions;
- Adoption of urban agriculture process (in the proposed Agri-City) which utilises wastewater and bio-solids for food production, and in turn generates biogas or fuels and provides locally produced fresh food;
- Manufacture of electric vehicles; and
- Local employment programs to upgrade existing housing and buildings.

3. Creative Industries

As previously discussed, creative arts are under-represented in Western Sydney. This extends to the creative industries sector, which includes architecture, design and visual art, advertising and marketing, music, film, television, radio, software and design of games and other interactive content. By their nature, creative industries seek to innovate and tend to lead the adoption of new ideas and technologies. The presence of creative industries in a region or employment centre can have the effect of hastening the uptake of new ideas and foster innovation in other sectors.

Research by the NSW Innovation Council indicates that about 37% of Australia's creative industries are based in NSW, making it the largest creative industry economy in Australia.²³ Western Sydney needs to capture a much larger share of this market than it has to date, and engage the flow on benefits to other parts of the economy. Particular creative contributions to the future of Western Sydney include:

- Architects and urban designers – providing urban renewal and innovative housing solutions;
- Industrial designers – providing manufacturing re-processing and transformation, and the design of new products;
- Brand and marketing, film and media, web – providing a remaking the region's identity and promoting regional businesses; and
- Music and performing arts – encouraging festivals and events.

²³ The Creative Industry: Economic Fundamentals , 2008 and Creative Industry Insights, February 2009.

4.6 Leadership

Discussion

Most cities grow over generations, adding and subtracting in some kind of ordered chaos. Governments are elected and make decisions which are then modified, overturned or carried forward by new governments. The big decisions, the ones that change cities fundamentally, are rarely, if ever, made by the single stroke of a pen. However, they are often founded on a defining idea and enacted via the focus of a leader or government intent on delivering that idea



What mechanisms could deliver a coordinated regional approach to planning the region's future?

With this in mind, it is heartening to note that cities which do have an overarching government or governance structure are able to move quickly to resolve issues or make courageous decisions when required. Cities such as London, Brisbane, Paris, New York, Vancouver and now Auckland (following amalgamation of twenty local governments) are tackling the big issues head-on. This is not surprising as they share a common denominator: each has a coordinated governance structure and a strong leader.

Leadership: Ideas for Future Directions

1. Regional Governance Model

For Western Sydney to address the big issues in the context of city-wide planning, and position itself amongst the world's leading city-regions, it needs a regional governance structure that can drive a strategic planning agenda. This structure would be an enabler of informed decision-making and investment and be able to engage with developing a new paradigm for the region rather than simply taking a business as usual approach.

The Western Sydney Councils may wish to consider creating a formal regional structure which is given delegated responsibility for strategic planning of land use, transport and environment, and has a mandate to facilitate development activity. This would involve individual councils relinquishing their responsibility in this area and delegating them to a jointly-owned regional structure. It is likely that special legislation would be required to enable such a structure.

The benefit of this approach against greater State control is creating a structure that is representative of regional issues, more flexible and nimble to respond to opportunities as they arise. The proposed regional structure also leaves scope for individual Councils to retain responsibility and ownership for shire-specific matters.

2. Visions, Goals and Targets

Planned change requires a vision; transformational change requires community engagement in that vision. Successful change is also often underpinned by goals and targets that plot a path towards the vision. To position itself effectively for 2030 and beyond, Western Sydney requires a vision that attracts broad support and goals and targets that are linked to that vision.

The Future Direction framework can inform that vision. However, widespread community engagement will be required to finalise a vision.

A short selection of goals and targets that effectively describe key future directions, and can be addressed in planning frameworks, are listed and described below.

- Carbon:** Although global processes to reduce greenhouse gas emissions appear to have stalled, city governments world-wide are taking the issue into their own hands and establishing carbon reduction targets. WSROC could consider developing a carbon target that focuses effort in Western Sydney towards a decarbonised economy.
- Workforce Participation:** Increased workforce participation underpins a number of the ideas proposed in this discussion paper and can contribute to reducing entrenched disadvantage. Western Sydney may want to set targets for employment and workplace participation relative to levels in Sydney so they reflect access to opportunity rather than external economic conditions.
- Jobs Growth and Containment:** Further to measures of employment, or instead of, targets for the proportion of the population who work locally can be an effective measure of economic activity, the effectiveness of renewal activities and access to opportunity.
- Public Transport Use:** Improving public transport services in Western Sydney has long been an agenda item for WSROC, and this report supports that priority. A target for increased public transport would be useful to measure progress towards that goal.
- Housing:** A target, or targets, that establish goals for housing diversity, density and/or affordability are also suggested.
- Resource Protection:** This report has highlighted the natural resources that are fundamental assets for Western Sydney. Goals for the protection of these resources would be appropriate.
- Community Engagement:** Finally, the vision will not be achieved without community engagement and leadership and so targets for effective engagement are proposed.

Should Western Sydney set a target for carbon reduction?

3. Development Authority and Focussed Interventions

A number of the ideas proposed in this discussion paper depend on the renewal of the existing cities that together comprise Western Sydney. This will not happen via a vision or land-use plan alone, but will need a delivery vehicle which is charged with overcoming the barriers to renewal and delivering outcomes that have a design and people focus.

**What is
required to
kick-start
investment?**

A Development Authority is one vehicle that could facilitate the renewal of Western Sydney. The renewal scope would include the incubation of economic activities, a mix of housing options, activated main streets and public spaces, public transport and accommodation for community services. This process will involve prioritising and planning for the integrated development of new centres, and the urban retrofit and renewal of existing areas in ways which optimise sustainability outcomes, rather than a piecemeal and short-term approach.

It is envisaged the Development Authority would be empowered and resourced to:

- Strategically acquire and consolidate or subdivide land holdings to facilitate renewal;
- Create a detailed development plan for the precinct, including for land beyond the control/ownership of the Authority;
- Re-release land to market in accordance with the plan;
- Work with the Department of Transport to deliver/upgrade public transport facilities as appropriate;
- Work with existing businesses and research facilities to facilitate development of industry clusters for each town;
- Fund and deliver enabling works, such as key infrastructure, that may be a barrier to private development or catalyst projects;
- Develop an investment model and lever which enables small builders to deliver more complex housing typologies.

The Redevelopment Authorities created in Western Australia to oversee large scale urban development across a range of tenures is a good example of the land development powers envisaged for this model. Typically these authorities have limited scope to influence economic development; this model would need to address those linkages in some way.

4. Empowering Community Leaders

The need to foster and enable local and grass roots initiatives has been raised throughout this discussion paper. The success of these initiatives is dependent upon strong community leaders – the people who put their hand up to run local organisation, who lobby for change and can unite others for a cause. While some community leaders are lauded for their efforts, others who disagree with the status quo can be branded as troublemakers. All have an important role to strengthen the community and disseminate views and information.

Some city governments have enacted specific programs to engage with community leaders as thought leaders and as conduits to the community. The Thuringowa Voices program is one such initiative that engaged a wide selection of community leaders, both peacemakers and troublemakers, in an ongoing dialogue with Council. This program relied on the capacity of the leaders to disseminate information back to their communities of interest and to reflect these views to decision makers.

5. Investing in Tomorrow's Leaders

Western Sydney's young population is one of its great strengths, and the old adage is apt: the youth of today are the leaders of tomorrow. Today many young people in Western Sydney do not enjoy the same access to education, jobs and other opportunity as their counterparts in eastern Sydney. Investing in young people and addressing disadvantage is critical to positioning Western Sydney as a leading city-region in 2030 and beyond to 2050.

Strategies to address identity, health, public transport, access to tertiary education, job diversity, creativity and economic vulnerability will all contribute to positioning Western Sydney's young people for the future. However there also needs to be a more direct and personal investment at the community level in equipping young people in the region to stand up and lead in the future. This requires a community development approach, and commitment from the existing community leaders.

Of all the ideas presented in this paper this is one of the most central to the long term future of the region, and easily overlooked.

5 Next Steps

The purpose of this discussion paper has been to prompt leaders and champions of Western Sydney to think beyond the horizon when planning for the future of the region. It poses some tough questions and challenges readers to face these and consider options for addressing them.

The next step in this process will be a Thought Leaders Workshop where a number of the region's leaders and champions will be brought together to respond to this paper, exploring the questions and ideas in the paper, and bringing forward fresh ideas that can assist in propelling the region forward.

The culmination of this work will be a Future Directions framework that will inform an integrated planning process for the region. It is expected that the framework will describe a vision for Western Sydney, and to stimulate discussion we have created the following statement that draws together ideas presented in this paper to describe one plausible future for Western Sydney in 2030. There will be many others.

It has been said that

“A problem is something to run away from, a vision is something to run towards”.

In 2030, Western Sydney has emerged from behind the coattails of Eastern Sydney to be recognised as the driving force in Sydney's economic and cultural life. Residents and business are proud to live, work and do business in Western Sydney, which is recognised as the residential centre, economic engine room, alternative CBD, green heart and lungs, food bowl, water factory, renewable energy power house, scenic rim, playground and cultural catalyst of Sydney.

Western Sydney is structured around a connected cluster of cities, each with a distinct character and economic raison d'être that has been built on the back of existing business and assets. The cities have symbiotic relationships and each connect to Parramatta as the finance and business capital of the region. Together the cities offer a diverse and resilient economic base and excellent job choices for the region. The local economy is typified by businesses that are diverse, utilise local strengths and work together to create closed loop systems.

This urban transformation was facilitated through the Western Sydney Redevelopment Authority (WSRA), which has powers to acquire strategically significant land and access funding for enabling infrastructure critical in the early years to remove financial barriers for the development of land. Transport and energy infrastructure is funded via whole of life modelling that demonstrated the cost of inaction and includes mechanisms for Governments to realise the return on investment through reduced overheads and value uplift.

The cities and towns of Western Sydney are home to many more people and businesses than they were twenty years ago. They have a dense and compact form which includes taller, but not high rise, buildings, and busy activated streets. A diverse population lives in these centres, attracted by the housing choice and accessibility of jobs, education, services, arts and transport, as well as the 7 day a week retail, cafe and entertainment activities. The cities are also service hubs for residents in the outlying suburbs and semi-rural areas and for workers from the expanding manufacturing and logistics hubs.

While basic services are still provided at a local level, planning, development, infrastructure and service delivery are managed regionally via a unified regional structure voluntarily developed by the local governments. The Councils have also partnered with the State and Federal governments to enable the WSRA to be established. This model was one of the first in Australia but has since been copied extensively due to its demonstrated success.

A whole of region community engagement program, stretching over a decade, has fostered significant social capital and resilience. This work is now self-

sustaining. Success is evidenced by memberships of local clubs and organisations, community disaster planning and management structures, settlement support services for new arrivals and high levels of community volunteering at both schools and aged care facilities.

The education rates, education attainments, employment rates and employment profile of the region have improved markedly and are now much more similar to that of eastern Sydney. The University of Western Sydney has grown substantially in size and earned an enviable international profile which rivals longer established institutions. The region has attracted campuses from other universities and a number of research centres of excellence. The Western Sydney TAFE has also evolved to meet the training needs of new businesses and a changing population.

Households enjoy higher incomes, better access to information and services and are less vulnerable to price rises than they were 20 years ago. While social disadvantage continues to exist, clusters of disadvantage are more dispersed, support services are more targeted and effective and residents are more likely to overcome disadvantage, largely through access to jobs and education.

A reduction in lifestyle-related health problems is evident due in part to higher rates of incidental exercise. Cycling has become an integral part of life for many families. There is a slow trend towards higher consumption of fresh food and this is also improving health, as is improved education and employment.

The regeneration of the city centres has reduced travel distances and traffic congestion across the region. The cities are connected by regular and rapid public transport services. Residents spend less time travelling on average and more trips are made by public and active transport. Local services and high quality park and ride facilities connect the surrounding areas to each city.

The road network is used less by cars, as public transport is faster and cheaper, but it meets the need of manufacturing and freight sectors, which have prospered through early adaption to changing market conditions and practices.

Transport services are augmented by a high-speed rail between Melbourne, Canberra and Brisbane, which connects to Parramatta and the Eastern Sydney CBD via a station at Badgery's Creek. This connection has facilitated the development of Badgery's Creek as Australia's first Agri-City and Western Sydney's first new city in many decades. Many freight, agricultural, food and emerging light manufacturing businesses have clustered at this location and at Sydney's highly successful second airport, which is primarily freight services and has been built at another site in Western Sydney. The airport development and high-speed train station are iconic structures that have come to symbolise all that is great about Western Sydney.

Western Sydney has led the rest of Sydney in responding to climate change, resource depletion and other future challenges, both local and global. This is an immense source of pride for the community, and has secured the economic future of local industries and reduced the vulnerability of residents. Western Sydney meets more than half of its power requirements with renewable sources, including distributed systems and large power stations and is transforming its transport systems away from a dependence on fuel-hungry cars. Western Sydney has invested in significant flood mitigation, urban heat reduction and fire management projects which are future-proofing communities while transforming the urban landscape with trees, green open space and water bodies.

Western Sydney has a global presence, partially through the leadership it has demonstrated on carbon and climate change, but also as the host of significant events. Western Sydney is now home to the world's largest multi-cultural food and arts festival which showcases the food, arts, music and dance of every cultural group in Western Sydney. Western Sydney also hosts an multi-stage adventure race that is a highlight of the global adventure sports calendar and has boosted adventure-based visitation to the area.

Now the excitement and preparations are all focussed on the World Cup which Western Sydney will host in 2036.