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Submission to the House of Representatives Inquiry into Sustainable Cities 2025. The Committee for Sydney Inc.

The purpose of the Committee for Sydney is to work with all sectors of government and private enterprise to ensure Sydney reaches its potential as a global city. This aim is dependent on the City's ongoing development in terms of economic and commercial health, social vibrancy, environmental impact and infrastructure development. These principles are consistent with the concept of sustainable cities, therefore, the Committee has compiled the following paper to highlight areas for further discussion and investigation.

Sydney is Australia's premier city, providing a substantial proportion of Australia's economic wealth. The continuing success of the City is therefore integral to the prosperity of the nation.

Sydney accounts for 21% of the Australian population but contributes 23% of the GDP. It is the site of 64% of multinational regional headquarters based in Australia and the gateway for the majority of Australia's overseas tourism arrivals and departures.¹

The Drivers

The Committee's submission addresses the principle drivers of urban change in Australian cities, these being:

- Urban sprawl
- Population Growth
- Settlement patterns
- Infrastructure provision and funding

The submission also considers possible measures to reduce the costs of continued urban expansion, the role of the Commonwealth and the

¹ Source: ABS Cat 3222.0. Source: Population Projections, Australia 1999 to 2051



importance of water and its management to the future of urban habitation in the greater Sydney area.

Urban Sprawl

The US Transportation Research Board's Transit Cooperative Research Program Report 39 – The Costs of Sprawl – Revisited (TRB, 1998) provides a good overview of the issues associated with urban sprawl. The report defines sprawl as the “spread out, skipped over development that characterises the non-central city metropolitan areas and non-metropolitan areas “ of western urban settlements.

Like many US cities, Sydney has all of the defining characteristics of sprawl, the principal of which are:

- Low density settlement patterns
- Spatial segregation of land uses
- Consumption of agricultural and other fragile lands
- Reliance upon the motor vehicle
- Fragmented land use planning

Density

A good deal of work has been done in recent years to compare the relative advantages of low-density development with medium and higher density development. Research undertaken in the US reaffirms that trip lengths and commuting distances across higher density settlement types reduce in comparison to lower density settlements. However, in Australia it appears that the public favours low density residential developments. An understanding of the trends in development densities in our urban areas is fundamental to achieving our broader longer-term sustainable goals.

Spatial Land Use Segregation

For the most part, outer residential and non-residential areas (shopping centres, retail outlets, industrial parks and office buildings) have and continue to develop in a spatially segregated fashion. Our land use guidelines and laws are slowly being adopted to better integrate our settlements but in an ad hoc and poorly co-ordinated way.

Large pockets of non-residential land that are currently not designated national parks, such as the Holsworthy defence lands, may soon come under pressure for urban development. The land use and transport implication of the conversion of these areas needs to be addressed.

Consumption of fragile lands

Metropolitan change in Sydney over the last fifty years has been influenced to a small degree by a succession of big picture plans beginning with the County of Cumberland Plan in 1951. Few practitioners in Sydney would be aware that the early investigations underpinning the 1951 Plan were in fact undertaken more than a decade earlier by the then Department of Main Roads.

The investigations were detailed in a report entitled Main Road Development Plan for Sydney Metropolis and County of Cumberland – Part 1 Investigations Relating to the Present and Future Extent and Pattern of the Metropolis (DMR, 1940). On the basis of national and Sydney population forecasts of 11.5m and 2.5m persons, respectively by 2000, the report established the assumed future limit beyond which continuous urban development would not extend within Sydney. When the 1951 Plan was eventually released it retained aspects of the original DMR study in an effort to retard the most obvious excesses of unbridled sprawl (Sandercock, 1977). The Plan had a green belt intended as a permanent check on the urban expansion of the city. By the early 1960s political and property pressures were such that the green belt was breached on multiple fronts. This continues today and will be exacerbated by the improved accessibility brought about by the Western Sydney Orbital. Urban growth boundaries have emerged as one of the most popular growth-management tools in the fight against urban sprawl and warrant much closer scrutiny by State governments and practitioners here in Australia.

Reliance on the Motor Vehicle

Under sprawl conditions there is an overwhelming reliance upon the motor vehicle.

Over the longer term, the trend has been consistently one of steady growth in trip rates, trip lengths and vehicle kilometres travelled. Between 1991 and 2000 the total kilometres travelled by Sydney residents on an average weekday increased by about 2% each year. Similarly, the growth in private car use grew at 2.7% per annum. The average distance travelled per person is about 36km, up from 32km in 1981.

The most recent census data shows that private vehicle usage was 70% of all trips in 2001 up from 67 percent in 1991. The number of vehicles per household is up from 1.3 to 1.4 vehicles.

Sydney has more than 2.5 million vehicles, accounting for over 57% of NSW total fleet. In 2002 over 17,000 new motor vehicles were registered in



Sydney². Freight traffic is predicted to increase at a greater rate than other vehicles, with larger and heavier trucks on the roads.

Fragmented land use planning

This is arguably the most significant impediment to the achievement of our sustainable urban development objectives. The absence of integrated land use planning stems from individual developers operating independently of each other across a myriad of local government areas throughout States like NSW.

A good body of work has been completed in the United States examining cross local government boundary issues including economics, the journey to work commute, air pollution and land use. These are generally considered to be the issues that pose the greatest public policy challenges for local and state governments. A Californian Commission for Regionalism has been set up to examine these and other issues more fully. The work has been initiated in response to an acknowledgment that local governments lack the legal, political and financial ability to adequately address these challenges.

The Californian Commission's terms of reference are similar to those of the NSW Local Government Boundaries Commission, which, earlier this year, recommended that parts of South Sydney Council be transferred to the City of Sydney, despite objections that it would jeopardise the financial viability of the local government areas and stretch levels of elected representation.

There is a strong case for the adoption of greater regionalism in our land use, infrastructure and social planning. The rationalisation of local government jurisdictions within metropolitan Sydney is a fundamental part of this.

Population Growth

According to forecasts prepared by the ABS, Sydney is predicted to have a population of 5.8 million in 2051. This represents a 44% growth over 1999 population of 4 million. NSW's population, including Sydney, is expected to increase to 8.2 million, a 24% increase over 1999 figures.³

On current predictions, Sydney will increase by the size of Canberra every 5 years.

Overseas migration accounts for nearly 1000 people per week settling in the Sydney basin. As the primary Australian city, Sydney provides the obvious choice for immigrants to establish their economic and social base in their new country. The magnitude of forecast growth in Sydney is not significant in international terms. The infrastructure implications of this growth, however,

² Source. Roads and Traffic Authority. New Establish Registration by Vehicle Type 2002; Vehicle Fleet by Vehicle type, 2001

³ Source: ABS Cat 3222.0. Source: Population Projections, Australia 1999 to 2051



are important and recent experience (north west sector, Macarthur) suggests that we are not adept at managing and planning for such change.

The extent to which the Sydney metropolis continues to expand is, like all cities, linked to government policy and rates of population growth, which in turn is a function of changes in fertility rates, trends in international and internal migration and household size.

There is evidence in both the Census and household sales trends that suggest Australian's are slowly abandoning their love affair with inaccessible suburbs and the quarter acre block. This is where demographics are becoming increasingly important. Young professionals are marrying and having children later while 'empty-nesters', couples that no longer have children living at home, are rediscovering the appeal of urban life (Economist, 2002). The very excesses of the suburbs—big houses on big plots—make them less attractive for older couples.

However, the long-term implications for Sydney and other Australian cities of these indicators is not well understood.

Growth factors

In July 1970 an international research team at the Massachusetts Institute of Technology began a study of the effects and limits of continued population growth across the planet. The study, *The Limits to Growth* (1972), was commissioned by the Club of Rome and concluded that the world could not support rates of economic and population growth, as they were then, for more than a few decades. Some of the report's conclusions are still valid today, but they failed to acknowledge the importance of fertility rates as a determinant of population change over time.

The Economist article: *Half a Billion Americans* (August 22, 2002) provides a good insight into the importance fertility rates will play over time in Europe and the United States. The paper points to a widening gap with Europe where the fertility rate is falling compared to the United States, which is rising. These trends are forecast to accelerate over coming decades such that by 2040 America will overtake Europe in population.

In Australia, trends in fertility rates will also be an important determinant of growth and change. In 2000 the national fertility rate was 1.75 births per woman, down from 1.91 in 1991. The fertility rate for females residing in NSW was 1.81 in 2000, which compares with a rate of 1.63 for Victoria, 2.0 for the United States and 1.8 for the UK (ABS, 2002).

The ABS forecasts that by 2021, Sydney will gain another 950,000 people in 550,000 households at 2.45 persons per household. The average household size in Sydney in 2001 was about 2.7 persons. Despite the government's

desire, the vehement opposition to urban consolidation and increased densification in existing urban centres in Sydney will ensure that a lesser portion of households are provided within inner and middle zone areas.

The significance of population issues in the Australian context has been exaggerated over recent times and pale into insignificance when compared to the challenges facing the US and Europe. Nevertheless, the process of population change must be better understood if we are to effectively plan for the needs of our towns and cities into the 21st Century.

The influence of fertility rates and population growth in Australia is a topic often raised but poorly understood in the broader context of our long term planning.

If the fertility rates are falling and households are getting smaller, why is there the sustained pressure on land and house prices and continued demand for residential development? We need to better understand these issues if we are to build sustainable cities.

Settlement Patterns

Many of our metropolitan areas are characterised by continued and, to a large degree, uncontrolled peripheral growth. Development that expands in an unlimited and uncontiguous fashion outward from a denser urban centre or centres. The pattern of development is low density, is difficult and costly to service and encourages the use of the car.

The development pattern taking hold across the Newcastle – Sydney – Wollongong greater metropolitan area warrants closer scrutiny and lends itself to a regionalist approach to planning, particularly with respect to the planning for transport. Sydney's geographic location is such that urban expansion is restricted by the Blue Mountains, the northern and southern National Parks and Pacific Ocean. Trends suggest that over coming years the urban development will continue to merge into a contiguous urban mass linking the three urban centres. This will be accompanied by an increasing awareness of the importance of north-south transport between Newcastle and Sydney embracing freight and passenger movement.

Coupled with this is a forecast increase in population on the Central Coast, about 34% between 1996 and 2021. However, there is some uncertainty as to whether jobs growth will keep pace with this figure. If the existing Central Coast share of available employment in Sydney is maintained in the future, employment on the Central Coast is forecast to grow by about 25% in 2021. Forecasts suggest that a similar situation will occur south of Sydney in Wollongong. The pace of residential and commercial development in the Wollongong region is forecast to grow significantly over the next 20 years.

The planned upgrade of the Wollongong and Newcastle Port facilities will provide added impetus to the development of regional hubs for exports, commerce and growth. It is acknowledged, however, that substantial infrastructure development is required to transform the current facilities to meet future needs. As 85% of current container freight into Sydney's ports is destined for businesses within 40 kms of these ports⁴, freight and transport facilities to and from Wollongong-Sydney-Newcastle are of significant importance. The cost of this transport and the time needed to move the freight will impact on the final price of the product if the expenses cannot be contained.

The case for linking the greater the greater metropolitan area via a high-speed north-south transport facility is sound both in terms of the potential journey to work contributions, freight and non-work related trips. The Warren Centre concluded that a high quality mass transport network is required to link major centres, or nodes, to each other as part of the greater metropolitan transport network.⁵

There are other management tools available to Government to achieve a more equitable distribution of land use and sustainable movement throughout our metropolitan areas. One is discussed below.

Infrastructure Provision and Funding

The focus on reducing government debt at the expense of timely and adequate infrastructure provision has been subjected to debate over recent times. The present day over zealous approach to reducing or eliminating federal and state debt stems in part from the budget deficits that characterised the 70s and 80s. The reluctance to borrow to finance higher order infrastructure provision is felt in all sectors but no more profoundly than with respect to heavy rail, particularly in Sydney. Investing in infrastructure that delivers flow-on services for many years and encourage more sustainable behaviour and growth is wise.

Transport infrastructure in Sydney and NSW has traditionally been provided through Commonwealth, State and Local Government allocations and through developer charges and user-pays charges. Developer charges in Sydney have mostly been restricted to local transport infrastructure, but with a few examples of contributions towards the cost of regional transport. User charges have enabled several privately funded toll roads to be built in Sydney over the past decade, generally with wide community acceptance.

There is now a need to look more closely at the benefits and limitations associated with the introduction of a regional transport contributions regime.

⁴ Source: "First Port Future Port". Sydney Port Corporation 2003

⁵ Source: City of Cities. The Warren Centre for Advanced Engineering. 2003

This need stems from a rejection of public ‘subsidisation’ of metropolitan expansion, an increase in the involvement of the private sector in the provision of public infrastructure, the acceptance of the user pays approach and constraints faced by the State in funding road and rail infrastructure

Any scheme which levies proponents of development for contributions towards the costs of providing higher order infrastructure and services for new urban development in Sydney must be equitable and methodologically robust. Moreover, the case for regional development contributions rests on the ability to retard the continued outward expansion of cities such as Sydney, and reduce the ‘subsidisation’ of this less sustainable development. A system of variable levies (higher in less accessible undeveloped areas vs. lower levies in more established accessible areas) could encourage growth of a more compact and sustainable city whilst recouping at least some of the costs of infrastructure provision. The Committee for Sydney calls for a closer examination of the role of regional contributions and its implications for urban development and housing affordability. This should be undertaken as part of or subsequent to the release of the Parry and Unsworth reviews.

Water

Sydney’s main water reservoir, Warragamba Dam, is currently at less than 60% capacity. Although the current water restrictions are a result of the recent drought, the warning signs are there. Warragamba supplies 80% of Sydney’s water

With increased demands on this resource, alternative methods of supply will be necessary to cater for a population of nearly 6 million people forecast in 2051.

Recently the Safe Yield of the Warragamba catchment / resource was revised downward from 720 gigalitres to 600 gigalitres per year. Recalculations were based on factors such as stream flows; climatic patterns and catchments area needs, leading to a substantial change in the long-term water strategy. Sydney Water transferred approximately 630 gigalitres over the last 12 months.

Treated water flow into Sydney’s rivers is under threat from the opposite problem. Although the treated water released into waterways is of very high quality, the load is increasing at a substantial rate. For example, South Creek naturally has a flow of approximately 10 megalitres a day, but with increased treatment requirements this could reach 120 megalitres by 2021, putting pressure on the ecosystems in the area.

New housing developments in South West and North West Sydney have improved water recycling and collection regulations allowing for the use of rainwater tanks for garden and lavatory water. The Rouse Hill residential

development incorporates a dual water system, including treated waste / recycled water for gardens and lavatories in all new houses.

These new developments account for 30% of growth to the Sydney residential areas. The majority of new development is in existing urban areas. The cost of retrofitting established water and sewerage systems to maximise recycled water use is significant. Commercial buildings have significant water requirements, but only a small proportion of the water needs to be drinking quality. Installation of treatment and recycling plants in all new commercial buildings requires serious consideration.

A change to the community attitudes to water and a reduction in water use is essential for the long-term management of this resource. It is currently undervalued in terms of the cost of provision – environmental and ecological factors do not appear to be factored into the analysis of how much it costs to deliver water to all homes and offices. If water is regarded as a valuable commodity, rather than an inexpensive service, behavioural changes and reduced wastage of the resource will result.

Water efficient appliances, incentives for water conservation and awareness of the need to protect our water resources are first steps to ensuring the continued delivery of quality drinking water to the Sydney region.

The pressure of supplying the fresh water needs of nearly 6 million people will require wide ranging strategies, including increased recycling and reduced wastage. In 2050 it may be the case that Warragamba water is only for drinking, cooking and bathing. All other water requirements will have to be met from alternative sources such as recycling and desalination.

Articulating a Strategy

The key to successfully articulating a blueprint for managing growth and change within cities like Sydney rests with better understanding the key drivers of such change. The key drivers are the management of urban sprawl and our water resource, population growth, settlement patterns, and the provision and funding of infrastructure.

There are many measures available to Government to reduce the costs of continued urban expansion. The critical measures have been outlined in this paper.

Sustainable cities are the result of good planning, long term strategies and shared visions between government, business and communities. If Newcastle is to become the major secondary city for NSW, than planning is needed now to ensure the pressures of growth are managed early and with foresight.



A city is greater than its economic base; it is the long-term synergy between the social, cultural, environmental and commercial needs of the community. A great city is a place where businesses can prosper, the citizens feel part of a vibrant community and the provision of services is efficient and effective to meet their needs without degrading their environment.

Sydney's dilemma is not unlike those of many other capital cities in the OECD group: continuing economic growth and prosperity, sustained demand for suburban household formation, rising car ownership rates and increased private motor vehicle travel. Whilst previous census data suggests that an inner city revival and rising house prices are lessening what would otherwise be a stampede to the fringe, there is a good case to justify greater debt financing in the provision of infrastructure. This needs to be done in conjunction with an appropriately targeted and managed user-pays regime, which can also contribute to more sustainable travel behaviour throughout the city and the greater metropolitan area.

Recommendations

The Committee for Sydney recommends that:

1. State and Federal governments give greater consideration to the funding of higher order infrastructure through appropriate debt financing.
2. The Standing Committee lodge a submission seeking greater Federal contributions to the funding of higher order infrastructure in Sydney.
3. The research being done in Europe and the United States on setting limits on 'growth boundaries' be further scrutinised as a means of controlling and arresting urban sprawl in Sydney.
4. A more thorough and detailed examination of the introduction of a contributions regime for higher order infrastructure throughout Sydney be initiated. The review should embrace a consideration of the benefits and limitations of the introduction of such levies including their potential as a policy tool to influence urban growth.
5. Any future strategic plan for the Sydney Metropolitan Area embraces a consideration of the role of large tracts of non-residential land, such as Holsworthy Defence Lands, as a potential location for future urban expansion.
6. The terms of reference of the Parry and Unsworth reviews be widened to embrace an examination of the revenue implications of more effective and integrated land use planning and the broader options for funding the provision of higher order infrastructure.



7. A population and demographics division is established within DIPNR to better assess and plan for growth trends across the Newcastle - Sydney – Wollongong greater metropolitan area.