



NATIONAL URBAN POLICY

RESPONSE TO *OUR CITIES – BUILDING A PRODUCTIVE,
SUSTAINABLE AND LIVEABLE FUTURE*
DISCUSSION PAPER

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ABOUT CONSULT AUSTRALIA

Consult Australia is the peak industry body representing consulting companies that provide professional services to the built and natural environment. These services include design, technology and management solutions for individual consumers through to major companies in the private and public sector including local, state and federal governments. Consult Australia represents over 270 companies, from large multidisciplinary corporations to small niche practices, collectively employing over 50,000 staff.

Consult Australia's vision is to drive business success for consulting companies in the built and natural environment through collaboration, education, support and advocacy. We are dedicated to providing support and advocacy to our members with integrity, commitment, evidence based positioning, responsible actions and respect.

Consult Australia achieves these goals through a range of top down (improving regulation and creating opportunities) and bottom up (building capacity and community to reduce risk) support and services to members.

EXECUTIVE SUMMARY

Consult Australia welcomes the opportunity to contribute to the development of a National Urban Policy and respond to the discussion paper *Our Cities – building a productive, sustainable and liveable future (Our Cities)*. A National Urban Policy—alongside and coordinated with the parallel development of a National Sustainable Population Strategy, National Land Freight Strategy and National Ports Strategy—is essential to ensure our cities are positioned to grow and prosper recognising their role as core drivers of regional, state and national productivity and economic growth.

The challenges facing our cities associated with higher than previously forecast population growth, climate change and the need for a more sustainable approach to urban planning, affordability, liveability and governance are substantial. To meet these challenges, investment in our cities must be prioritised, planned and aligned with broader state and national policy settings.

Infrastructure investment and planning provides the network that enables our cities to meet these challenges and evolve in response to future demographic, environmental and economic changes. The current spend on infrastructure in our cities is varied. While Brisbane, Melbourne, Adelaide and Perth are supported by stronger strategic planning and a more robust pipeline of infrastructure investment (though there is much more to be done in these cities also), Sydney remains ripe for reform, suffering from the long-term effects of under-investment in infrastructure, poor planning and fractured governance.

The Summer of 2010-11 has seen new challenges for our cities and regional centres with unprecedented damage caused by flood, cyclone and bushfire. These disasters with their immediate impact on urban and commercial infrastructure highlight the importance of adaptation in our built environment and the far reaching role of our cities in supporting the wider economy. It is through the infrastructure provided through our cities: the road, rail and ports that connect our cities with the rest of the world that we are able to harness the continued opportunities emerging from the resources boom and connect with the global economy.

In November 2010, Consult Australia launched *Transporting Australia's Future*, a call to action for governments to back new ways to secure infrastructure funding specifically for transport infrastructure as a core driver of productivity. This report recommends widespread tax reform and the establishment of new governance mechanisms to ensure sustainable long-term sources for infrastructure funding. Drawing substantially on this work, this submission recommends the National Urban Policy prioritise reform of infrastructure funding and where possible expedite the delivery of state-based infrastructure funding mechanisms. With a growing infrastructure deficit across Australia, and with funding being redirected in response to some of the most costly natural disasters Australia has ever experienced, it is vital that longer term funding is released to build the economic infrastructure critical to urban development and national productivity.

In this context crucial decisions continue to be required to prioritise the delivery of projects with limited resources and in the face of an ongoing skills shortage. This prioritisation needs to take account of the whole-of-life costs of a piece of infrastructure and determine value for money, the balance between capital and maintenance expenditure and sustainability. To ensure a National Urban Policy capable of achieving real change, alternative models are essential to finance project delivery, streamline procurement and maintain investment in infrastructure across generations.

Alongside this core recommendation, Consult Australia is a strong advocate for those principles reflected in *Our Cities* that encourages more sustainable communities through better use of transit corridors, integrated planning, and land-use that facilitates better use of existing and planned infrastructure. A commitment to this type of planning and the prioritisation of infrastructure supporting this planning across our cities is essential.

SUMMARY OF KEY RECOMMENDATIONS

1. Securing long-term sustainable sources of infrastructure funding through the review and reform of existing policy settings must be prioritised as part of the National Urban Policy.
2. Commission a review of opportunities for pilot studies of new road pricing mechanisms.
3. Prioritise and plan for the delivery of sustainable, liveable, higher density residential development in our cities alongside the delivery of essential economic infrastructure.
4. Develop a robust, independent and transparent process for the evaluation, prioritisation and decision-making supporting infrastructure delivery as a 'best-practice' approach for implementation across state and territory governments.
5. Incorporate best practice procurement as a key objective of the National Urban Policy and in consultation with industry, identify and implement new more efficient and effective procurement models.
6. Support integrated planning and community consultation as an essential component of urban development.
7. The National Urban Policy should facilitate the development of a National Adaptation Plan to ensure coordination, prioritisation and delivery of adaptation initiatives nation-wide.

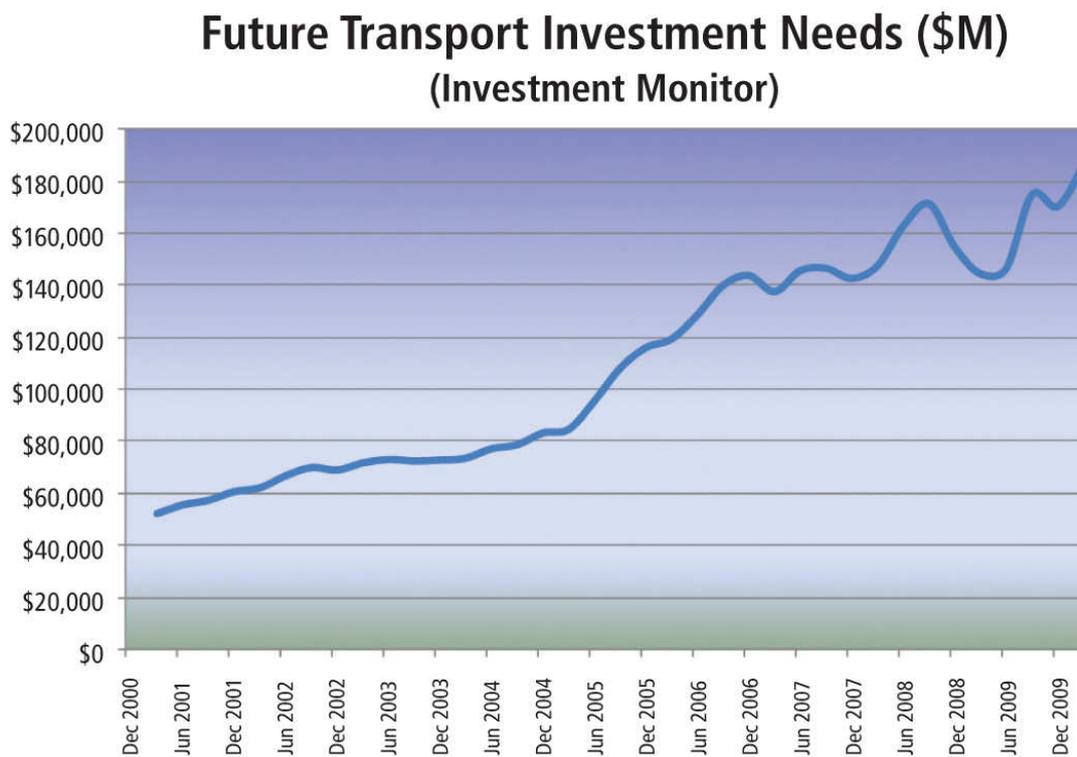
1. INVESTING IN TRANSPORT INFRASTRUCTURE

Transport, population and the economy

Australia’s economy is more dependent on transport than most other Organisation for Economic Co-operation and Development (OECD) countries. We owe Australia’s economic and social development and well-being in large part to past investment decisions in transport infrastructure. Transport and logistics represent some 14 per cent of Australia’s GDP and account for some 330 million kilometres of travel made every day in capital cities. Our transport infrastructure provides access to employment, facilitates social inclusion, and allows our cities to grow. It moves 520 billion tonne kms of freight each year, supplying Australia’s industry, enabling export revenues, and supporting our economy. Transport represents up to 8 per cent of industry output.¹

While public investment in transport infrastructure has followed population growth, it has failed to keep pace with our economy (GDP), this being partly offset by private investment. Recently, AusLink investment and stimulus response to the Global Financial Crisis (GFC) have increased public investment, but private investment has declined. Of significant concern, infrastructure maintenance has not kept pace with new investment.

Figure 1: Future Transport Infrastructure Investment Needs



¹ Consult Australia, *Transporting Australia’s Future*, November 2010, www.consultaustralia.com.au

Future infrastructure investment in Australia that is planned, committed or under-construction stands at \$717 billion (March 2010). Over \$186 billion (26 per cent) is identified as essential transport infrastructure. More than half of this (over \$100 billion) is for government funded transport projects, including backlog projects. In the last nine years, forecast transport investment needs have increased over 300 per cent. However, Government expenditure on transport remains about 4 per cent of budget.

The National Land Freight Strategy Discussion Paper (February 2011) notes:

Reliance on government funding for infrastructure is a further source of uncertainty about capacity for growth. Freight and other projects at various stages in Infrastructure Australia's project pipeline have a capital cost in the order of \$83 billion.

The economic argument for general taxpayer support of infrastructure principally used for commercial activities is weak. Government funds are limited and the Intergenerational Reports expect increasing pressure on government budgets. Government funds can also fluctuate over short time frames, in contrast to the long term funding streams required for major infrastructure programs.

While government funding may be a desirable short term position for commercial interests, there is the potential for it to lead to underinvestment in infrastructure.

While more direct funding is required by all governments for infrastructure, this highlights the greater importance of longer-term reform to secure sustainable and adequate funding streams from a range of sources.

Current sources of transport revenue

Currently government funding for transport infrastructure is mainly sourced through consolidated revenue, reflecting a political balancing between competing demands. Given other pressures on government investment, this is unlikely to change over the short term. Many "user charges" are woven into the current consolidated taxation system. Current revenue streams are mainly limited to:

- Fuel Excise
- Vehicle registration
- Parking fees
- Tolls and Ticket fares
- GST

Reliance on traditional fuel excise as the key revenue tool is internationally recognised as having limited longevity, with diminishing reserves and increased fuel efficiency curtailing revenues. An infrastructure funding regime based on fuel taxes has no sustainable future.

While revenues from transport users cover the aggregated costs of transport, they are largely treated as taxes and a net contribution to general revenue, with no accountability to transport users who are frustrated by inadequate reinvestment in transport. There is no accounting for intangible costs of transport (e.g. congestion, greenhouse emissions, community service obligations, social equity).

Recommendation 1:

- *Securing long-term sustainable sources of infrastructure funding through the review and reform of existing policy setting must be prioritised as part of the National Urban Policy.*

New revenue sources

Transporting Australia's Future (www.consultaustralia.com.au) canvases a range of funding mechanisms emerging around the world that can provide sound and proven revenue streams. New ideas need to be integrated with existing policy to deliver the necessary change. Implementing just one of these reform areas would result in a noticeable difference in our ability to fund transport. It is when they are implemented together as part of an overall reform package, we as a nation could fully develop a national transport system.

Better Use of Existing Assets

Infrastructure assets that are included on government balance sheets can be better used, or provide leverage to stimulate new funding:

- **Lazy Assets:** identify balance sheet assets that are underutilised, and realise their value by sale or alternate government use;
- **Privatise infrastructure:** sell existing infrastructure to private sector to finance new investment (e.g. Telstra, QLD ports & rail; M4);
- **Transit Oriented Development (TODs):** recognise the need for higher density development, and focus on transport nodes to reinforce transport efficiency while achieving viable patronage (e.g. airspace development at rail nodes);
- **Urban Sprawl:** retain existing urban footprints and increase urban densities to reduce urban sprawl in a model of multi-centred cities with reduced trip lengths;
- **Change Mode and Time of Travel:** shift the transport focus from individual private travel to public travel in more efficient vehicles; allowing greater throughput on existing infrastructure and greater use of non-peak periods.

Taxation Reform

The Australian Government Treasury through the Henry Review has opened the door to widespread tax reform. Opportunities to restructure consolidated revenue to fund infrastructure are critical:

- **Hypothecation:** new user based revenues committed to service provision e.g. modelled on national health funding;
- **Full Cost Recovery:** ensure that users contribute the full costs of their travel choices;
- **External Costs:** include social and environmental consequences of travel in user charges, just as road safety is charged through insurance (e.g. economic delay charged through congestion charges, emission impact charged through carbon pricing);
- **Corporate Taxation:** rebalance taxation treatment of capital investment (CGT and depreciation) against recurrent expenditure (operational costs) to encourage long-term infrastructure investment;
- **Transport Pricing:** adopt appropriate technology for all transport modes to provide network-wide demand sensitive pricing to manage congestion and provide revenues for public transport.

Public Finance

Develop financial instruments to provide government with expanded sources of funds for infrastructure investment:

- **Tax Incremental Financing:** This allows a government entity to generate tax revenues based on increases in property values within a prescribed development area and use those revenues to fund the infrastructure and renewal projects that contributed to the property appreciation;
- **Developer Infrastructure Charges:** As companies develop green- and brown-field sites, the inherent values of the land increase. Transport provision for the new land-use and maintenance of transport amenity for others must be accommodated, with the developer being levied accordingly;
- **Employer Transport Levies:** Employers contribute to cost of transport in business location, based on the benefit to the employer of ready access for its employees to work e.g. levies in Ile de France;
- **Green Banking:** Establish a banking structure that allows contribution towards environmentally sensitive infrastructure investments from community and developments, including "compensatory" investments;
- **Carbon Pricing:** Embrace fully-fledged world-best carbon pricing protocols, including carbon price in all transport pricing initiatives, with increased transport revenues being invested in Green Banking;
- **Infrastructure Bonds:** Continued development of specific Infrastructure Bonds to help private infrastructure investors access large pools of retail investment funds, such as from superannuation funds. This will extend current government support of simplified bond issuance and discounts on bond interest income.

Private Finance

Develop new sources for transport financing, including new Public Private Partnerships (PPPs) and superannuation fund investment:

- **Direct Tolling:** Of new and enhanced existing infrastructure, this model continues the current theme of private debt/equity financed infrastructure retaining a period concession to directly charge users;
- **PPP Funding:** Revitalise Private Public Partnerships reflecting the success of alliance infrastructure contracting, and providing rebalanced risk sharing.
- **Land Value Capture:** As with developer infrastructure charges; with the developer financing local improvements from the increase in values.

Australia's Future Tax System: User charging

Australia's future tax system: Report to the Treasurer (Henry Review), in considering a move towards greater use of user charging as part of its tax reform agenda notes that:

[P]ublic goods should be generally funded from broad-based taxes. However, user charging can be an efficient means of financing some government-provided goods and services and of rationing individual access to community resources.

Reviewing current road transport tax arrangements, the Henry Review observes:

Current road tax arrangements will not meet Australia's future transport challenges. [...] Moving from indiscriminate taxes to efficient prices would allow Australia to leverage the value of its existing transport infrastructure.

With respect to road pricing, the Henry Review makes a key recommendation wholly supported by Consult Australia:

Governments should analyse the potential network-wide benefits and costs of introducing variable congestion pricing on existing tolled roads (or lanes), and consider extending existing technology across heavily congested parts of the road network.

The National Urban Policy provides a significant opportunity to further advance the development of road pricing as a mechanism to source additional funding for infrastructure investment. At a minimum the Policy should commit to a review of opportunities to undertake pilot studies of new road pricing mechanisms. Such mechanisms will demand extensive community consultation and should draw on overseas experience to identify an approach that maximises the likelihood of public acceptance and success.

Recommendation 2:

- *Commission a review of opportunities for pilot studies of new road pricing mechanisms*

Washington State Road Pricing Pilot

The Puget Sound Regional Council Traffic Choices Study recruited a statistically significant sample of volunteers and, after establishing their baseline "before-tolling" driving routine, began charging them for access to selected roadway facilities during particular time periods in the day. In other words, they had to pay road tolls. The study monitored driving behavior of participants for an average of approximately 18 months per household.

Participants did not lose money. They were given a travel budget (or endowment account) from which tolls were deducted. If their driving patterns remained unchanged over the study, they would "spend" their account balance by the time the experiment concluded. If they changed their driving patterns to reduce the amount of driving on toll roads, they would keep the difference. This method held participants financially harmless, yet offered them the incentive of keeping their leftover budget if they changed their driving patterns. In this way, the study introduced real price incentives of a toll system, and measured whether and how much participants responded to those incentives.

The Study found that participants made small-scale adjustments in travel that, in aggregate, would have a major effect on transportation system performance. Done right, network tolling could provide broad benefit, including lower vehicle emissions, fewer accidents, travel time savings, improved roadway performance reliability, and lower vehicle operating costs. For motorists to be better off, however, the revenues from road tolling must be used to provide additional benefits to users of the transportation system.

Puget Sound Regional Council (<http://www.psrc.org/transportation/traffic/faq/>)

The Henry Review also supported the aims of the COAG Road Reform Plan and recommended an acceleration of its timetable towards mass-distance-location-based charging. The Henry Review suggests that, where tolls are levied by private infrastructure operators, state governments should negotiate to compensate operators if the switch to variable tolls involves a loss of revenue (and conversely to pass the gain to road users or government if there were gains in revenue). The Review notes that introduction of congestion pricing on existing roads would place stress on existing public transport services and draw attention to inadequacies. Introduction of user charging should be coordinated with—and help finance—additional investment in public transport.

The Henry Review notes that the implementation of user charging would lead to less congested roads, shorter travel times and investment in road infrastructure that addresses user demand and provides a foundation for further productivity growth, improved living standards and more sustainable cities. In exchange for targeted charges, road users benefit. They would pay less fuel tax, motor vehicle stamp duties could be abolished, and compulsory third party insurance would be fairly priced. The revenue from efficient user charges could help finance new urban transport infrastructure, and cover the cost of heavy vehicle damage.²

However, these charges would not pay for the full cost of providing and operating the road network. The remaining costs could be funded from general tax revenue, or by retaining a network access charge (such as annual vehicle registration) or a variable charge (such as fuel tax) set to recover the efficient costs of road provision. Important non-economic community objectives would still be funded from general revenue through well-defined community service obligations. New investment based on economic criteria, and accountability for investment decisions would help ensure that roads are in place to address future needs.

Existing institutions have not led to the most efficient use and supply of our transport infrastructure—particularly roads. User charging is essential to making the best use of roads, but they must be coupled with improved governance that better serves the needs of road users, now and in the future.

The Henry Review concludes:

The challenge is formidable. It requires coordination across all levels of government. But reform would promote the best investment in and use of our roads, lift national productivity, and improve the lives of millions of Australians.

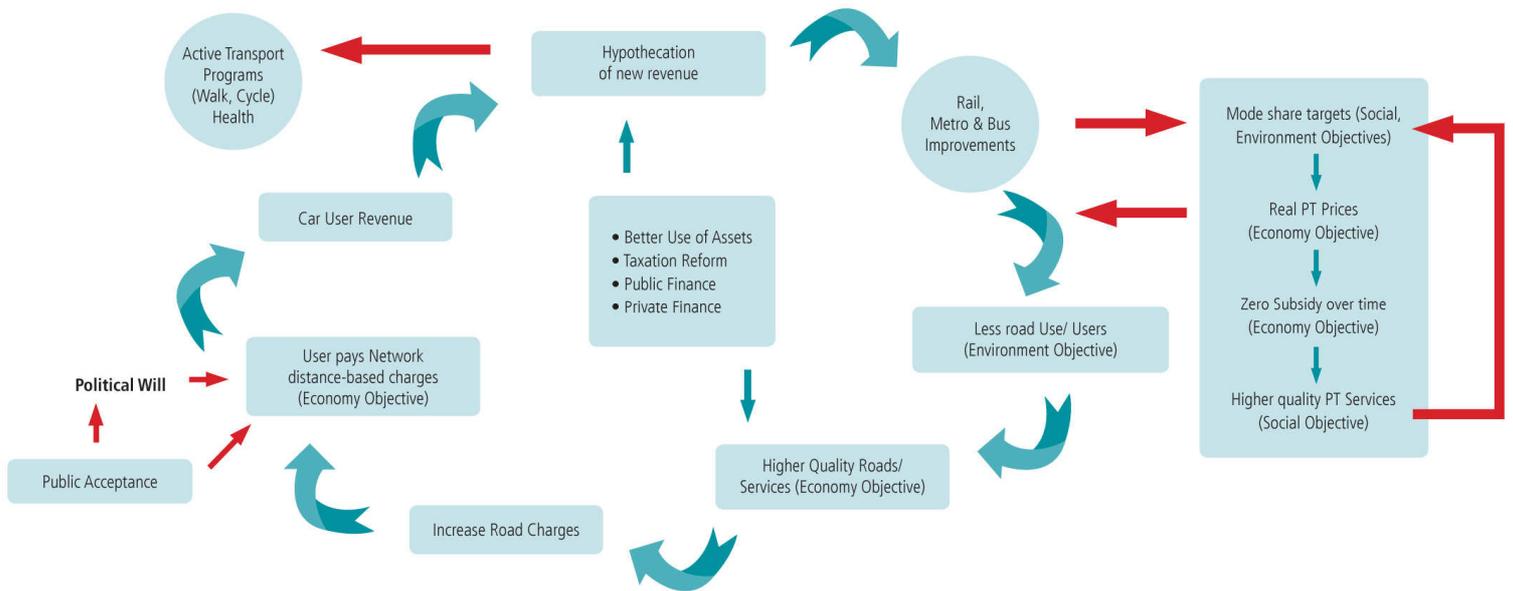
Governance

The reform advocated by Consult Australia through *Transporting Australia's Future* requires both vision and commitment at State and Federal levels. An implementation plan must recognise economic, political and community issues. Implementation needs to be gradual, and ensure that individual funding initiatives do not disenfranchise existing users. Increased charges for private transport must be matched by the provision of public transport alternatives and improved infrastructure. Lessons can be learned from the agreed COAG endorsed restructuring of heavy vehicle pricing, with funding of pilot projects being championed by individual States, such as Tax Incremental Finance by NSW, congestion pricing by Victoria, and managed motorways by South Australia.

Transport is a government responsibility, and integrated transport planning and governance remain critical objectives, linking funding to its management. Introducing user pays, road pricing and hypothecation into mainstream thinking may require rebalancing between Federal and state governments, and between state transport agencies. Reduced reliance of diminishing national fuel revenues may need to be offset by city transport policies with localised planning and revenue collection. Siloed transport agencies must give way to consolidated integrated departments of transport focused on the delivery of effective movement of people and goods.

² The Productivity Commission has also reported favorably towards user pays and distance based charges for heavy vehicles, informing COAG's decision to proceed with mass distance charges for heavy vehicles; see *Road and Rail Freight Infrastructure Pricing: Inquiry Report* (April 2007).

An Integrated Funding Framework for Transport Infrastructure



Transporting Australia’s Future sets out an integrated funding framework for transport infrastructure:

Multiple objectives with Win-Win outcomes: An integrated funding framework would provide confidence to implement national, city and regional transport plans, including metropolitan and inter-urban transit systems, reducing car and air travel and our carbon footprint.

Hypothecate new revenues to transport investment: Community support for funding reform will be vital. Hypothecating all revenues from new sources to transport investment in a transparent integrated framework has been shown to ensure that support.

Cost recovery: All transport users should cover the costs that they impose, with any subsidies and cross-subsidies being the transparent result of overt policy decisions.

Road pricing and real public transport fares: These will provide additional revenues, to improve existing and support new Public Transport (PT) services, reduce hidden Customer Service Obligations (CSOs) and PT subsidies, and provide efficiency gains across all modes.

Phase out of indirect charges: Integrated funding across all new sources would include reduced reliance on indirect taxes, improving funding transparency.

2. INFRASTRUCTURE PRIORITISATION AND DELIVERY

A clear and transparent, long term approach to the prioritisation of infrastructure delivery is essential at all levels of government. Many projects are prioritised through clear and rational assessment, but in some cases decision making risks being misconstrued and may appear to be driven by political exigency where no clear process or guidelines for assessment have been developed. When communities are competing for dollars spent, clear processes are essential to assess, rank and prioritise infrastructure delivery. These must be robust and stand the test of changing political and economic circumstances.

While Infrastructure Australia has instituted clear processes to assess and evaluate projects, to date such a process is not replicated across all states and territories. This has led to delays in infrastructure delivery, budget blow-outs, and the politicisation of project prioritisation and selection. In an increasingly competitive labour market, the implications for industry and the wider economy are significant where resource planning, forecasting and delivery estimates are compromised.

An emphasis on the development of more robust infrastructure plans across the states and territories is commendable towards identifying needs, but does not in itself go far enough to provide secure funding over the medium to long-term, nor adequately prioritise delivery and decision making through a robust and consistent framework.

Recommendation 3:

- *Develop a robust, independent and transparent process for the evaluation, prioritisation and decision-making supporting infrastructure delivery as a 'best-practice' approach for implementation across state and territory governments.*

Best practice procurement

Of great concern to the industry is the methodology of procurement of major infrastructure projects. While recognising the need to maintain a competitive tendering environment, Consult Australia questions whether value-for-money and best-practice is always being achieved through current policy.

Council of Australia Governments Infrastructure Working Group

Consult Australia congratulates the recent achievements of the Council of Australian Governments Infrastructure Working Group which has resulted in regulatory reforms aimed at cutting red tape and promoting efficiencies in the delivery of infrastructure projects.

In addition to current work examining the potential benefits of achieving greater national consistency in the use of contracts in infrastructure delivery, Consult Australia urges the development of robust procurement guidelines and risk management practices. Alongside an examination of the need for better contracting conditions and practices, these initiatives will establish the benefits of reform in these areas for productivity, efficiency and delivery across infrastructure projects in our urban centres.

Research into alternative procurement models is urgently needed, particularly in the face of increasing demand for resources particularly as the mining boom accelerates. To be able to manage the tendering process effectively and efficiently, we believe the challenge for government is to find better procurement models, potentially involving alternative project delivery methodologies, which will reduce wastage and misdirection of resources that could be being more productively engaged.

Recommendation 4:

- *Incorporate best practice procurement as a key objective of the National Urban Policy and in consultation with industry identify and implement new more efficient and effective procurement models.*

3. SUPPORTING INTEGRATED PLANNING

There is an intimate relationship between planning and funding. Funding the vision, value capture and financing of infrastructure and development is as much a planning issue as it is a finance issue. Too often, strategic planning is undertaken without sufficient consideration of the overall economic implications and financing mechanisms. The concept of achieving best value for money should not be the only driver of strategic planning, but it should be a key consideration.

Consult Australia believes good planning provides the potential to achieve integrated, sustainable outcomes more efficiently and provides a robust framework to guide funding, project development and delivery over a long period. We welcome the government's delivery of a National Ports Strategy and the current development of a National Land Freight Strategy in this context. These plans, and the prioritisation of their delivery should be appropriately referenced as part of a National Urban Policy. The spatial planning that follows these higher level plans provides a powerful means of understanding and resolving the effective integration of social, economic and environmental functions within the urban system.

Strategic planning should be undertaken for a horizon appropriate to the rate of evolution of (and investment in) the urban system i.e. in the order of 20 to 50 years. While it would be developed with a long-term view, it would be reviewed (and potentially revised) regularly. It would always constitute the highest order of planning for the urban system.

Establishing a Nexus between Strategic Planning and the Community

Strategic planning, whether of the urban structure or of the infrastructure that serves it, is rarely readily understood by the community – the value, the costs, the role it plays. The main exception to this assertion is in the face of implementation, where communities might rally to oppose a project due to its impacts on them. There is an acute need for the community to better understand the need for infrastructure and how to plan for it, as well as engage in the process that results in the plan that affects their community.

This nexus between people, their level of service expectations, the associated infrastructure requirements and its costs needs to be better communicated and addressed in order to instil a clear understanding of the planning process required to best achieve optimal land use and infrastructure outcomes.

It is essential that the National Urban Policy supports long-term planning goals in consultation with business and the community.

Recommendation 5:

- *Support integrated planning and community consultation as an essential component of urban development.*

4. ATTRACTIVE DENSITIES AND LAND USE MIXES

The mix and density of land uses are fundamental characteristics of different cities. Density in each different land use or mixture of land uses creates opportunities and limitations to the live/work/play choices available to citizens of that city. Those choices are currently under pressure from influences such as population growth which adds an estimated 1000 persons per week to some of Australia's major cities; housing shortage/affordability, rising fuel costs resulting in mortgage stress in car-dependent outer suburbs; a trend towards obesity in suburbs not conducive to healthy living; and a decline in the quality of the environment.

Density and mix can apply to a range of employment and workforce and residential uses. Density is usually referred to in terms of persons per square kilometre. Current Australian and global benchmarks for the bulk urban densities of major cities are summarised in Table 1: Major Cities – Population and Density.

Infrastructure and Urban Infill

Critical to the delivery of a more sustainable and liveable city is the concept of development within the existing developed footprint. Certainly green-fields development will continue, but often stated objectives reducing this to a percentage or less, of new dwellings, will require a major rethink of how "infill" development proceeds.

Absolutely central to the concept of greater population density within the existing footprint, is the concept of greater demand on infrastructure of all forms. However, significant limitations exist in relation both to capacity of existing infrastructure to meet the demands of greater population, but also in relation to the ability to readily enhance capacity of existing assets.

Solutions to providing adequate service delivery will require innovation (delivery may be in demand reduction rather than supply increase) recognition of the linkages between services (water and wastewater, telecommunications and broadband connection etc) and sophistication in delivery models.

Increased density reduces the cost and increases the efficiency of most forms of infrastructure networks, including water, waste, telecommunications, electricity and gas, and transport. However, people do not make their lifestyle choices on the basis of cost and efficiency alone.

The current focus on high density, high rise housing for urban consolidation in major cities has been largely driven by the desire by government and others for a quick fix to achieve the maximum possible "density benefit" from the minimum available land area in the shortest time. In the longer term this ignores the clear potential adverse community and social implications of developing large concentrations of high rise, high density housing in inner urban areas.

The broad issue is to inform the choices of Government, developers and communities to:

- Establish acceptable densities and mixes for different urban localities.
- Assess suitability of existing infrastructure for an increase in densities.
- Research best practice in medium/high density planning and design.
- Ensure infrastructure precedes or coincides with higher-density development.
- Plan for nourishing quality denser suburbs, e.g. incorporate open spaces.
- Resolve conflicts between State and local governments on density planning.

Planning for Density

In many Australian cities the density of dwellings has been increasing but the number of persons per dwelling or per household has been decreasing. Consult Australia recognises this is an ongoing trend that needs to be taken into account in urban planning decision making.

Specific challenges that arise include:

- The alignment of planned transport routes and the corridors of denser population, and how this will affect the success of transport infrastructure strategy.
- The community embracing a denser housing model and the effect that this will have on private car use, and how this will interface with moderation of traffic congestion.
- Gaining acceptance of appropriate and consistent international benchmarks to support community debate around good quality denser living.
- Quantifying and analysing efforts to date that have been made in denser population planning and design. Investigating what can be done to minimise the adverse environmental impacts and carbon footprint of the many Australians who make a deliberate choice to live and work in lower density areas.

There is a strong linkage between the urban density of a city and lower levels of car dependence for its population and higher levels of public transport use for commuting to work.

Urban form influences travel mode, and the more dense our cities are (in terms of dwellings per land area) then the more likely it is that we can afford to provide high quality, frequent passenger transport systems like light rail or heavy rail. Consideration of utility corridors or 'critical infrastructure corridors' (a term used in Queensland) where power, water and telecommunications assets are co-located in a single infrastructure corridor makes financial, environmental and sustainability sense, and facilitates density with quality open space. This can re-institute and preserve green belt land zones.

Consult Australia supports a continued emphasis across states and territories towards Transit Oriented Development and ongoing work integrating land use and infrastructure planning. In this context there is an opportunity through the National Urban Policy to prioritise and plan for the delivery of sustainable, liveable, higher density residential development, alongside the delivery of essential economic infrastructure.

Recommendation 6:

- *Prioritise and plan for the delivery of sustainable, liveable, higher density residential development in our cities alongside the delivery of essential economic infrastructure.*

Table 1: Major Cities - Population and Density³

Grouping of Cities	City (Year of Data)	Density (persons per square km)	Population
Australian State Capital Cities	Brisbane 2006	900	1,676,000
	Hobart 2001	1000	126,000
	Canberra 2006	1100	356,000
	Perth 2006	1200	1,256,000
	Adelaide 2006	1400	1,040,000
	Melbourne 2006	1550	3,372,000
	Sydney 2006	2050	3,641,000
Major Southern Hemisphere Cities	Johannesburg 2001	2500	6,000,000
	Durban 2003	3500	2,900,000
	Cape Town 2001	3950	2,700,000
	Buenos Aires 2001	4650	12,000,000
	Santiago 2002	6800	5,390,000
Major European Cities	Milan 2001	1750	4,200,000
	Rome 2001	3200	2,750,000
	Paris 2005	3400	10,400,000
	Berlin 2001	3750	3,675,000
	Manchester 2001	4000	2,245,000
	Barcelona 2001	4850	3,900,000
	London 2001	5100	8,278,000
	Madrid 2001	5200	4,900,000
	Athens 2001	5400	3,685,000

³ www.demographia.com World Urban Areas Population and Density 2008

5. FACILITATING ADAPTATION

Considering that *'some measures of climate change are tracking at or above the worst case scenarios considered possible just a couple of years ago'* (CSIRO, 2009), international consensus unreservedly *'stresses the need to establish a comprehensive adaptation program'* (UN Climate Change Conference 2009). Such action would look to avoid the widespread social, economic and environmental costs climate change would cause.

It is generally accepted by experts that even if a global mitigation agreement is reached, and successfully implemented, adaptation will be required to maintain the quality of life we currently enjoy. To be successful adaptation will entail significant public and private investment over a considerable period of time. It is no longer acceptable for cherry-picked and politically beneficial recommendations to be selected from climate change reviews. A nationally consistent adaptation plan needs to be developed, and kept constant across political cycles, to protect Australia against the threat of damage from climate change, and to help us manage other demographic and economic changes already forecast (for example, population ageing).

Risk management has been identified as the predominant approach for adaptation. However, due to uncertainties with change, the fundamental information for a risk management approach is not available. For example, in relation to climate change, the level of mitigation, extent of change impacts, and probabilities of these impacts occurring cannot be quantified. Without this information, a full risk management analysis cannot be completed. Therefore, an overall precautionary approach needs to be relied on, in conjunction with risk management principles.

National Climate Change Adaptation Research Facility (NCCARF)

Consult Australia strongly supports the National Climate Change Adaptation Research Facility (NCCARF) recognising the potential value of interdisciplinary collaboration in the area of climate change adaptation

NCCARF's responsibilities to: identify critical gaps in the information available to decision-makers; synthesise existing and emerging national and international research on climate change impacts and adaptation; develop targeted communication products; and initiate integrative research against national priorities is vital in informing our approach to adaptation.

NCCARF complements activities and projects currently underway in other institutions across Australia and demonstrates the potential for interdisciplinary collaboration, and the results this can generate. The potential for further coordination and action building on this initiative is substantial.

As adaptation requirements become more generally accepted, planners and designers, rather than climate change experts, are increasingly being relied on to include adaptation considerations in new design accounting for 'likely' climate change scenarios. These scenarios are redefining the services expected by clients and pointing to a rapid need for clear parameters against which to measure project designs. Without clear guidelines, liability for future climate change impacts may be unintentionally placed on the designer or planner of the project. Without clearer policies, increasing levels of liability and ambiguity will push engineers, designers and architects to over-compensate and therefore over-design for protection against this and increase the costs of their services, and project construction costs. Continued collaboration between the private sector, the scientific community, and government is essential to establish clear parameters, on which to base industry standards for consulting in the built and natural environment.

Green Depreciation

The Gillard Government's substantial investment in Tax Breaks for Green Buildings, commencing from 1 July 2011, is a welcome step towards a systematic approach incentivising building adaptation and retrofit to improve energy efficiency. Through this measure, businesses that retrofit certain commercial buildings to significantly improve energy efficiency between 1 July 2011 and 30 June 2015 will be able to apply for a one off bonus tax deduction.

A longer-term commitment to Green Depreciation of investment in our current building stock provides one of the few ways to influence investment in existing buildings. Targeting these buildings is essential to obtain a substantial change in the building sector (given that new buildings represent only two to three per cent of the stock of buildings). Analysis suggests that green depreciation would only need to bring forward a relatively small proportion of refurbishment investment to make a significant reduction in energy demand and greenhouse gas emissions (*ASBEC Second Plank Report*).

Alongside investments to improve the energy efficiency of our building stock, Consult Australia supports the development of the Australian Green Infrastructure Council (AGIC) rating scheme for infrastructure, and the widespread adoption of Green Star and the National Australian Built Environment Rating System (NABERS) as essential components supporting the development of a more sustainable built environment.

A National Adaptation Plan for Action

It is essential that a nationally consistent adaptation plan for action is developed as a matter of urgency. A National Plan will ensure that the standard of adaptation, and therefore protection, is sufficient in all areas of Australia. The requirements for adaptation are immense, and it is unreasonable to expect that we will be able to afford the cost of all action. Therefore, planning is vital to identify the cost of adaptation action against the potential cost of no action, to prioritise projects and initiatives and support evidence based policy development.

A National Adaptation Plan for Action will need to:

- establish how prepared the public and private sector are;
- establish value-at-risk in recommending scenarios outlining the impact of climate, economic and demographic change;
- include adaptation considerations in planning and construction approvals;
- consider changes to urban infrastructure;
- adjust regulatory and policy frameworks to account for required adaptation requirements;
- review social services and changing community needs;
- provide clear recommendations for the modification of planning frameworks, legislation and design guidelines; and
- prioritise the preservation of ecosystems which do not have the means to adapt.

Adaptation will take a long time to plan and implement, but needs to pre-empt forecast changes to our existing way of life. It cannot be a reactive policy, but must progress sufficiently to permit its evolution and the identification of lessons learned. In responding to climate change, adaptation to our changing natural environment needs to commence well before the full effects are known.

Prepare, Protect, Adapt and Innovate for Climate Change

In preference to the general classification of climate change adaptation, governments need to segment research and action into four distinct areas. All four need to be addressed individually, but together are all essential elements of a prosperous future for Australia:

Prepare: Climate change adaptation is still considered a distant and innocuous risk. Private and public institutions need to be educated, their preparedness established, and resources provided to assist them in becoming prepared. Adaptation needs to be considered now in Environmental Impact Assessments, local planning procedures and included through other appropriate standards.

Protect: Immediate action for protective measures on many assets—natural and human made—which will be under direct threat if climate change predictions eventuate. Either natural or built assets should not be lost by accident.

Adapt: Action needs to identify ways we can adapt to climate changes as they eventuate to minimise the impacts of climate change on Australia. In many instances there may be no alternative than to retreat or abandon in which case there will be emerging issues related to insurance and compensation.

Innovate: In order to maintain and improve the quality of life in Australia, and increase prosperity for the long term, we need a concerted effort to develop innovative responses. Government initiatives and incentives will be required to reduce the risk for the private sector and provide return on investment for government.

Recommendation 7:

- *The National Urban Policy should facilitate the development of a National Adaptation Plan to ensure coordination, prioritisation and delivery of adaptation initiatives nation-wide.*

CONCLUSION

The National Urban Policy should reflect not just the immediate needs of our cities and regions as they are currently, but must accommodate the challenges and vision for our cities in the future. The decisions we make now for the infrastructure we need must be future-proofed as far as reasonably possible. This means we must continue to anticipate future demographic, economic and environmental changes.

Priority must be given to economic infrastructure that will play a vital role in the provision of jobs and greater productivity. Through identifying the importance of sustainable funding for infrastructure development and prioritising policy development to achieve this goal, the National Urban Policy can drive the development of our cities into the next generation. Alongside these initiatives, substantial benefits will be gained through the development of a clear infrastructure pipeline at all levels of government, supported by transparent decision making and best-practice government procurement. The National Urban Policy is a significant opportunity to drive reform across these varied areas of public policy through clearly stated objectives supported by best practice policy development across governments.

The development of a National Urban Policy is an opportunity to clearly state the vision for our cities and how this can be achieved. This means capturing the benefits of the resources boom, while simultaneously preparing for forecast changes to our environment and a post-resources economy.

These are significant challenges, and we provide our recommendations for your consideration with a view to helping overcome them in the years ahead.