INFRASTRUCTURE PARTNERSHIPS AUSTRALIA

BUILDING AUSTRALIA TOGETHER

Fixing NSW:

A LONG-TERM VISION FOR BETTER INFRASTRUCTURE

A submission to *Infrastructure NSW*

Infrastructure Partnerships Australia is a national forum, comprising public and private sector CEO Members, advocating the public policy interests of Australia's infrastructure industry.

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Executive Summary

New South Wales needs to substantially increase the quality, capacity and efficiency of its transport, utilities, social and community infrastructure. This will require the State to increase both the quantum of money it invests, and ensure that it invests in the best infrastructure projects to meet social and economic outcomes.

Achieving a permanent increase in infrastructure investment will require substantial reform to the State's budget; while increasing the quality and value for money achieved from these investments will require a fundamental overhaul of the way projects are conceived, funded, delivered and operated.

This new approach will require substantial changes to the established roles of government and the private sector.

Shortfalls across transport, utility and social infrastructure are constraining the State's productivity and imposing significant pressures on taxpayers, households and businesses through higher costs of infrastructure services.

Efficient infrastructure is the lifeblood of any economy; it underpins:

- the productivity of the economy;
- the ability of businesses to compete in a national and global market; and
- the quality of life and prosperity of the community.

At its core, infrastructure underpins the delivery of efficient services to drive forward economic growth and social development.

However, solving the infrastructure challenge in New South Wales is not as simple as issuing contracts for new projects. It will first require a fundamental shift in the way that infrastructure is conceived and planned – and a substantial period of budget reform to allow projects to advance from concept to completion.

Currently the New South Wales budget does not have the capacity to fund new projects without endangering the State's AAA credit rating. Analysis by Infrastructure Partnerships Australia estimates that New South Wales can borrow only an additional few billion dollars before it reaches its AAA downgrade trigger point. The NSW Government estimates that a drop to a AA+ rating would result in additional debt servicing costs of $3.75 billion over 10 years.[1]

In the past decade, New South Wales has suffered from the lack of a well-considered, well-founded and suitably long-term plan for the infrastructure needed to support economic and social outcomes. But this lack of a long-term vision for infrastructure is a relatively recent phenomenon. Indeed, the State has historically benefited from ambitious and very long-term approaches to infrastructure. Examples include:

- Governor Macquarie's reorganisation of the Sydney road network in the very early years of colonial Sydney;
- John Bradfield's 1923 Master Plan for Sydney; and
- The 1951 County of Cumberland Planning Scheme.

1 NSW Budget Speech, 2012-13 NSW Budget.

Each of these plans contained substantial foresight and ambition and acted to fundamentally change the shape, operation and development of the State.

In the past decade, that level of long-term strategic planning and sustained project delivery has been replaced by a series of rapidly changing planning and project priorities. The result has been a regrettable lack of integration and cohesion across government; and an equally regrettable lack of progress on the delivery of critical projects.

Done well, the creation of *Infrastructure NSW*, with its mandate to develop a long-term strategy for the State's infrastructure networks, offers a generational opportunity for the State to recapture the vision and ambition contained in the Macquarie, Bradfield and Cumberland plans. A strong and evidence based strategic infrastructure plan spanning the State offers the opportunity to shape the development of New South Wales across the coming half century.

Infrastructure NSW was formed after significant consultation across government and industry to perform two key functions:

- The delivery of an integrated long-term state infrastructure strategy and prioritised project pipeline; and

- The identification and adoption of major policy and market reforms, ensuring that New South Wales has the financial capacity to fund the massive infrastructure programme that is required.

Expectations are high among business and the broader community that *Infrastructure NSW* will be able to make immediate impacts on the State's infrastructure backlog. However, the pursuit of immediate-term goals must be considered in the context of longer-term requirements for the State's growth infrastructure.

Developing a whole of government infrastructure strategy will be a complex task. Prioritising the delivery of health projects against transport, community, justice, social housing and utility projects presents a significant challenge in its own right.

The development of a robust project prioritisation methodology, which accurately identifies requirements and costs – whilst allowing for the flexibility to innovate in the provision of infrastructure and services – will be a crucial part of ensuring the right projects are prioritised and advanced.

Of course, a robust long-term strategy alone will not solve the State's infrastructure shortfall. The strategy will likely identify hundreds of billions of dollars of project investments that will need to be funded over the coming decades. That will mean that the *Infrastructure NSW* strategy will need to be backed by sustained fiscal reforms across the State's public sector. Creating sustainable capacity for increased taxpayer investment in infrastructure will require complex reforms to the cost and quality of public services; as well as an ongoing process of privatisation of public assets and the consideration and adoption of targeted taxation and user pays measures to increase the availability of funding.

For example, research undertaken by Infrastructure Partnerships Australia found a full privatisation of the State's remaining electricity assets would liberate between $32.5 billion and $41 billion that could be invested in new projects. Full privatisation would also transfer future energy infrastructure investments away from taxpayers and on to the private sector. Reforming electricity alone would therefore strengthen the State's capacity to invest by more than $50 billion.

The NSW Government's privatisation of the Sydney Desalination Plant, and planned divestment of Port Botany, Port Kembla and the State-owned electricity generators must form the start of an ambitious and sustained programme to recycle taxpayer dollars from existing assets, for investment in new projects.

This submission makes a range of suggestions about fiscal, governance and project priorities that should be considered by Infrastructure NSW and the NSW Government in approaching this task.

Recommendations

1 **The long-term infrastructure strategy must be the principal focus of *Infrastructure NSW* and must look at requirements beyond the 20 year planning horizon to deliver a robust and stable infrastructure programme.**

- To be effective, the long-term strategy produced by *Infrastructure NSW* should integrate with the individual strategies and project plans of the State's central and line agencies, in particular the Long Term Transport Masterplan, the Sydney Metropolitan Strategy and the capital programmes of the Health, Education and Housing portfolios.

- The strategy must consider long-term population densities and other demand drivers and produce a logical strategy to efficiently provide the required passenger, freight, health, education and utility assets.

- The 20 year strategy must resolve likely locations and protect strategic lands and corridors for future transport, utility and social infrastructure assets. Failure to protect infrastructure corridors will increase the cost of future projects and may close off future options.

2 **Once adopted by Cabinet, the agency's five year project pipeline must be an accurate, funded and deliverable programme of investment to provide the community and investors with certainty about when, where and how individual projects will be brought to market. This must include an early indication of the likely procurement model.**

3 **The prioritisation of projects within the strategy and subsidiary pipeline will require the development of a transparent and robust project assessment and prioritisation framework. Both the results and underlying assumptions should be routinely published to allow public scrutiny.**

This prioritisation methodology and tools must consider economic, social and environmental outcomes, ensuring that *Infrastructure NSW* is selecting the best possible projects to contribute to the State's economic productivity and social outcomes.

Rigorous prioritisation methodologies must include development of systems to gather submissions and identify the full range of project options across transport, utilities and social infrastructure – recognising that some of the valuable and beneficial projects may not be in existing plans or purview.

4 ***Infrastructure NSW* also has an important role to play in identifying new funding and financing options for infrastructure projects to be considered by Government. Funding and financing options to be considered should include:**

- Opportunities to privatise existing assets, with the proceeds and avoided debt recycled into new projects.
- Appropriate opportunities to create new funding streams from monetising existing assets and the application of user pays models.
- The evolution of procurement and financing models, such as Public Private Partnerships (PPP's), to achieve maximum value and efficiency from public infrastructure investment.
- The identification of opportunities to reform existing practices across government to reduce waste and provide budget capacity for new infrastructure projects.
- Opportunities to use demand management and rational pricing of infrastructure to better balance supply and demand.

5 ***Infrastructure NSW* and the Premier should reserve the power to intervene in project delivery and programme management only for exceptional circumstances – instead, *Infrastructure NSW* should pass on expertise to procuring agencies, ensuring best practice is embedded within agency delivery structures.**

6 ***Infrastructure NSW* and NSW Treasury should develop and apply a robust ex post review methodology that encompasses all phases of the project lifecycle. The ex post review process should assess all 'Major Infrastructure Projects' – those of greater than $100 million project value – against initial business case, to continually enhance delivery of future projects by learning from both successes and failures.**

2 Principles

The formation of *Infrastructure NSW* represents an important evolution in the structure and governance of the New South Wales infrastructure programme.

When fully established and integrated across the structure of government, the agency will have an important role in providing government agencies and policymakers with independent and expert advice on the identification, prioritisation and oversight of the capital programme. *Infrastructure NSW*'s other primary function will be developing infrastructure policy reform options to drive a sustained programme of project delivery to enhance the competitiveness and liveability of New South Wales.

This section explores the principles that should underpin the approach of *Infrastructure NSW*.

2.1 The Long-Term Infrastructure Plan Must be the Principal Focus for *Infrastructure NSW*

The principal deliverable for *Infrastructure NSW* must be a robust and evidence based long-term infrastructure strategy for the State.

Many of the shortfalls in capacity and functionality of the State's infrastructure can be attributed, at least in part, to the lack of a uniting strategy. A long-term infrastructure plan offers many benefits, including:

- driving political will and community acceptance of the infrastructure investment programme;
- providing a higher degree of certainty around future infrastructure investments, allowing the public and private sectors to better marshal the skills and resources needed to deliver major projects efficiently;
- ensuring a fundamental link between the State's budget strategy and its capital investment programme;
- providing transparency around the rationale to make (or not make) particular project investments at particular times;
- ensuring the maximum allocative efficiency is achieved through public infrastructure investment, through applying robust decision making frameworks to the analysis and subsequent prioritisation of infrastructure projects;
- establishing a permanent link between land-use strategies and the provision of supporting infrastructure, allowing for infrastructure to be constructed in the right places and at the right time to support economic and population growth;
- providing the opportunity to place planning protections over strategic corridors and lands, lowering the delivery cost of projects required on longer term horizons;
- ensuring integration across government to allow the investments in one particular portfolio area to be considered in the context of a whole of government infrastructure strategy, for example, ensuring that a new hospital is optimally located to service population centres and is supported by transport networks; and

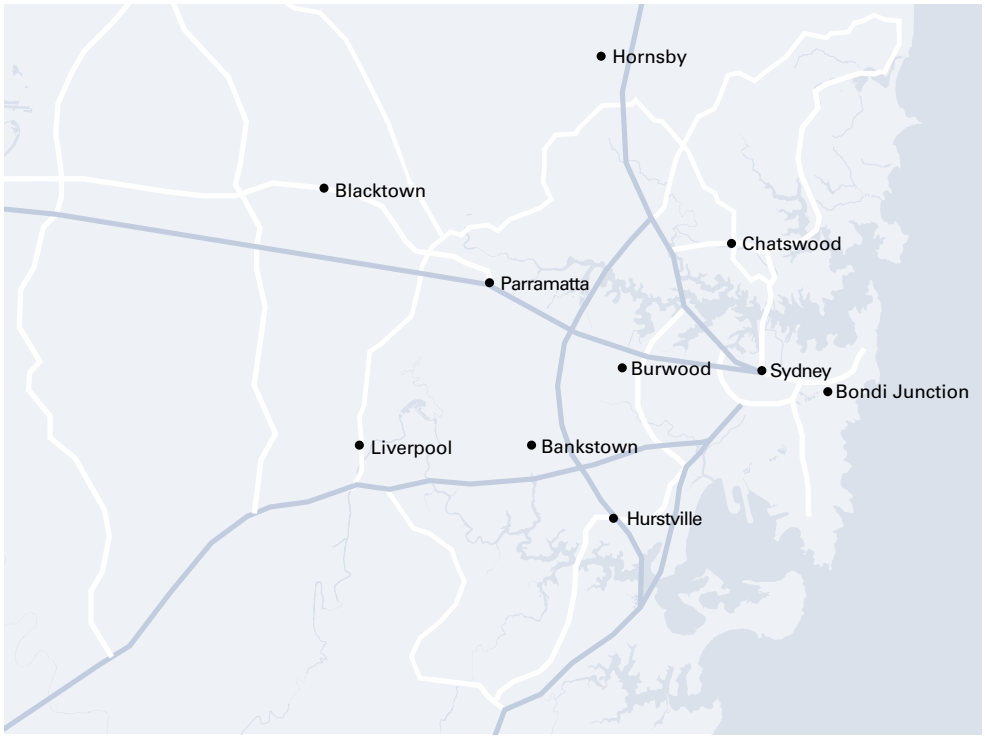
- the ability to ensure latent capacity on particular assets or networks, if they are likely to sustain ongoing demand growth.

The County of Cumberland Planning Scheme (the Cumberland Plan) arguably presents the best example of long-term infrastructure planning in New South Wales. That scheme, enacted in 1951, laid out the long-term transport strategy for Sydney and saw the protection of the land corridors for much of what is now known as the Sydney Orbital Motorway Network – see Figure 1.

▼ Figure 1

The Road Network of the County of Cumberland Plan

Source: The County of Cumberland Council (1956)



The Cumberland Plan integrated an array of previous plans and schemes to deliver a master plan for greater Sydney. The plan mapped out an integrated network of radial motorways, supported by inner city distributors, allowing for road transport to either bypass or access the CBD, as required.

The Cumberland Plan was adapted, appended and amended on more than six occasions over the next 60 years, with the Plan forming the basis of subsequent 'new' transport plans for Sydney. The most recent examples include the 2006 Urban Transport Statement, and aspects of the unreleased 2010 Transport Blueprint. In spite of these amendments and changes, the majority of the Plan's fundamental links have been delivered and form the basis of the Sydney Orbital Motorway Network.

The rigour of the Cumberland Plan ensured that the fundamental aspects of the 1951 strategy continued to be reflected by subsequent governments across most of the past 60 years, pointing to the positive impact that robust long-term plans have in driving consensus about infrastructure requirements.

Importantly, the Cumberland Plan protected the land corridors needed for what now comprises the Sydney Orbital Motorway network. Although subsequent governments sold off some parts of the protected corridors, such as the surface land for the M4 East and a motorway corridor that would have serviced the Northern Beaches (Sydney's worst performing road corridor); the Cumberland Scheme shaped the development of Sydney for the balance of the 20th century.

Since the completion of most aspects of the Cumberland Plan, New South Wales has suffered from a lack of clear direction in its infrastructure strategy. Over the past two decades, New South Wales has had more than nine separate transport plans, and several state infrastructure strategies or statements. However, the lack of an underpinning, long-term and evidence based strategy and fiscal constraints has seen each of these plans enjoy only a short life before being replaced by a subsequent long-term plan. This has had various negative impacts, including:

- a lack of credibility in the State's infrastructure programme;
- confusion in the public and private sectors about the forward pipeline of projects, leading to inefficient allocation of skills and resources;
- a lack of progress on actual project delivery, due to shifting priorities and the cancellation or reprioritisation of projects due to come to the market;
- a failure to protect long-term corridors for future use; and
- a public perception that infrastructure plans in New South Wales will remain undelivered.

The most problematic example of this contemporary approach has been the provision of urban mass transit infrastructure in Sydney. In 2007, the then Government announced plans to build a North West rail link, which was subsequently cancelled in favour of the North West metro; itself later cancelled in favour of the CBD metro. This project was put to market and then cancelled during procurement, costing taxpayers more than $411 million in reimbursements to bidders, land acquisitions and other costs.

For these reasons, this submission contends that the development and refinement of the long-term infrastructure strategy should form the principal focus of *Infrastructure NSW* in the coming several years. Further, this strategy should be considered in the context of a much longer timeframe, particularly in terms of complex issues like the protection of future infrastructure corridors and other strategic lands.

Done well, *Infrastructure NSW* has the opportunity to deliver the next Cumberland Plan for Sydney and a statewide vision to shape development across the coming century.

A thorough and well based infrastructure strategy has the potential to be remembered long after the individual projects it recommends have faded in significance.

2.2 Strategic Corridor and Land Preservation

A thorough long-term infrastructure strategy will allow New South Wales to make important decisions about future infrastructure requirements and ensure the required land corridors and strategic lands are protected from conflicting uses. Protection of strategic corridors and lands might support:

- future above ground passenger and freight transport corridors;
- underground transport and utility corridors in major cities;
- strategic lands for health, education and other social and community infrastructure in growth areas; and
- strategic lands to support future utility infrastructure, such as power stations, electricity and gas transmission infrastructure and sites for dams, desalination and other water infrastructure – and waste sites.

To be optimally effective, *Infrastructure NSW* should consider land-use and likely demand over a much longer time period than the 20 year reach of the strategy.

The protection of land corridors and strategic lands for future infrastructure will require a deep analysis and consideration of population and demographic trends and robust analysis of resulting demand for transport, health, education and justice facilities, and the intensity of demand for energy, water, wastewater and waste management.

Delivering a long-term plan will also require *Infrastructure NSW* to resolve the potential role for new networks or assets, including:

- Metropolitan (Metro) rail in Sydney;
- High Speed Rail corridors, which will be identified by the Federal Government's study;
- long-term additions to the motorway and outer-suburban rails networks; and
- an integrated freight network of intermodal terminals and new or expanded sea ports.

The strategy will also need to resolve where future power stations, dams, desalination plants, hospitals and other assets are located and how they interconnect with existing networks. Thorough analysis will allow the State to ensure that the land required for these future investments is protected from urban encroachment and other non-compliant uses, ensuring that the required land is available when these investments are eventually needed.

The protection (and where necessary, acquisition) of these lands will act to substantially lower the cost of future infrastructure assets. Analysis completed on behalf of Infrastructure Partnerships Australia found that the protection of a High Speed Rail corridor along the east coast of Australia would have cost $13.7 billion in 2010, compared to $57 billion in 2030.

Moreover, failure to protect corridors and lands in the immediate-term for long-term projects may rule out these options in the future.

2.3 *Infrastructure NSW* as a Strategic Partner Across Government

It is important that *Infrastructure NSW* does not seek to replace or duplicate the planning functions of front line agencies. Deep experience and expertise exists within agencies such as Planning, Health, Transport, Housing and others. *Infrastructure NSW* should work collaboratively across Government to interrogate and test the planning of these agencies against long-term requirements and work with Government to resolve the capital investment requirements of these departments within the available funding envelope and broader strategic needs of the State.

2.4 Project Conception and Prioritisation

The process of considering long-term needs and requirements for infrastructure services will necessarily suggest a wide range of potential projects. *Infrastructure NSW* has been specifically tasked with recommending a prioritised pipeline of infrastructure projects over a five year and 20 year period. The projects that will flow from the long-term strategy will necessarily cover:

- economic infrastructure (such as roads, rail and freight projects);
- utility infrastructure (such as dams, desalination plants and energy projects); and
- social and community infrastructure (such as hospitals, schools, gaols and social housing).

While the identification of individual projects will remain with line agencies, *Infrastructure NSW* has an important role in testing the assumptions that underpin a project's selection, suggesting alternative solutions in some cases and then prioritising a project against other investment priorities across the whole of government.

Determining the relative priority of a hospital or prison expansion over a road or rail extension will always be a difficult task. Developing a thorough, robust and transparent assessment methodology for all projects will form a sound base for cross-portfolio prioritisation.

That methodology must include assessment of a project's costs and benefits, before prioritisation – followed by detailed project definition and business case before procurement decisions are made.

For a range of reasons, including public confidence and bipartisan political support for the strategy, it is important that the prioritisation process is transparent and free from geographic, modal or technology bias. For this reason, *Infrastructure NSW* should, as a matter of priority, commission the development of an objective prioritisation methodology to assist the agency in the important task of prioritising the infrastructure priorities that flow from the development of the long-term infrastructure strategy.

Ensuring projects are subject to a stringent review process will also demand a deeper level of detail from line agencies and help to increase the allocative efficiency of the State's infrastructure programme.

Infrastructure NSW should therefore develop systems for gathering project submissions and identify the full range of projects across transport, utilities and social infrastructure – recognising that some of the potentially valuable and beneficial projects may not be in existing plans.

2.5 Procurement Agnosticism

In the context of a large capital investment task and limited financial capacity, *Infrastructure NSW* has an important role in driving best practice in the procurement, ownership and operation of infrastructure projects in New South Wales.

An important part of this role is ensuring that the State is applying the most efficient procurement models to deliver the State's infrastructure programme, on a best for project basis.

Given the scale of the infrastructure investment task, *Infrastructure NSW* should give careful consideration to how it can optimise the levels of private investment in public infrastructure. New South Wales has had a strong history in the utilisation of innovative procurement models for the delivery and operation of its infrastructure, including its role in developing PPP's and other private financing models.

While the Treasury and procuring department will recommend final procurement and financing options, *Infrastructure NSW* should make high level recommendations about opportunities for innovation in the delivery of the projects it identifies.

2.6 Contestability in Public Services

Beyond the identification, prioritisation, oversight and review of infrastructure projects, *Infrastructure NSW* also has a role to play in building the public case for substantial budget reform. A key component of this is driving productive efficiency across the State's operating budget.

The introduction of well-conceived competitive tension has consistently been shown to improve efficiency and service quality. Yet, despite consistent empirical evidence of the advantages of contestability, relatively few public services in New South Wales have been subject to competitive reforms. Those that have are delivering benefits to users and taxpayers.

Deregulation of the Manly to Circular Quay fast ferry route is a prime example of where deregulation, and the injection of competition, has delivered a vastly improved service and eliminated a government subsidy – turning a loss-making subsidised public transport route into a profitable, competitive service. The high speed Manly ferry service was operated by the Government provider until December 2008, when an interim private service was introduced. In April 2010, after a Government tendered private operator was awarded wharf access, the route was effectively opened to competition. Two private fast service operators now compete with the standard service operated by Sydney Ferries.

The results have been dramatic. Patronage on the fast ferry route has grown around 80 per cent in the three years since the private sector operators replaced the Government-subsidised Manly JetCat. A trip on the fast ferry services cost around $8.50 compared to $6.60 for a regular fare and the journey takes around half the time. When the removal of Government subsidies are taken into account, some analysts suggest each passenger trip on a fast service – around 4000 a day – saves the taxpayer in excess of $5.[2] Because private operators are competing for customers through enhanced services, such as complimentary refreshments, café services, free WiFi, electronic ticketing and licensed bars, the service quality to commuters has vastly improved.

In the context of a challenging budget position, New South Wales must look to opportunities to lower the cost of public services, while maintaining or increasing the quality of those services. The introduction of market based approaches offers a proven pathway to drive up the quality of public services, while lowering the cost to taxpayers.

As an independent government agency, *Infrastructure NSW* has an important role to play in the public discussion about the need for reform across the public sector to free up capacity to fund new projects.

2.7 Oversight and 'Step-In' Powers

The *Infrastructure NSW* Act 2011 identifies projects with a capital investment value greater than $100 million as 'Major Infrastructure Projects'. This status automatically invokes oversight or co-ordination of the project by *Infrastructure NSW*. *Infrastructure NSW* may also take control or oversight of projects in the smaller capital range (<$100 million) at the discretion of the Premier.

These project management and delivery powers should be reserved only for exceptional circumstances; the purpose of *Infrastructure NSW* should not be to centralise procurement across government. While oversight of project delivery outcomes is important, the routine assumption of project delivery functions from line agencies creates substantial interface risks and can add to the likelihood of poor project outcomes.

Infrastructure NSW should reserve its option to intervene in project delivery and programme management for only the most exceptional of circumstances – however both *Infrastructure NSW* and the New South Wales Treasury should deploy expertise into procuring agencies, ensuring best practice is shared across agencies.

2 Centre for Independent Studies, 2011.

2.8 *Ex Post* Review and Project Monitoring

Infrastructure NSW and the New South Wales Treasury also have an important role in driving best practice by conducting robust *ex post* analysis of project outcomes. Discerning how a piece of infrastructure performs in its operational phase, and how it compares with original business case assumptions, would inform future decisions – and should serve to continually refine and improve project pre-procurement assessment and prioritisation.

Developing an *ex post* review methodology which covers the full delivery lifecycle from project inception, through to delivery and continued operational performance – will be important to ensuring lessons are learned and applied to future major capital investments.

Infrastructure NSW should develop a robust *ex post* review methodology that encompasses all phases of the project lifecycle. This review process should be used to continually enhance delivery of future projects.

In addition to development of an *ex post* review methodology, *Infrastructure NSW* should also develop and implement a framework for the review and monitoring of current major projects. *Infrastructure NSW* has an important role to play in ensuring investments in infrastructure are delivered in the most efficient way, and in line with government and global best practice. By monitoring and benchmarking existing projects, *Infrastructure NSW* would have an opportunity to gather detailed information regarding best practice and ensure learnings are applied across the entire infrastructure programme.

2.9 Commonwealth Government Submissions

One of the functions of *Infrastructure NSW* will be:

> *"To co-ordinate the infrastructure funding submissions of the State and its agencies to the Commonwealth Government and to other bodies."*[3]

In an environment of limited capacity on the State balance sheet and few options to raise additional revenue through state-based streams, interacting with the Commonwealth Government will be a critical pillar in securing funding to progress projects in New South Wales.

Submissions to Infrastructure Australia will be the prime mechanism through which New South Wales can make the funding case to the Commonwealth Government – ensuring those submissions are thorough and supported by detailed project appraisals will be critical to securing much needed investment in the State.

While some commentary has suggested that previous State submissions were lacking in quality, that criticism has been unfair. However, the previous submissions were let down by the lack of a uniting, whole of government infrastructure strategy. That is symptomatic of the broader challenge, rather than a reflection of the expertise of individual public sector agencies.

A key outcome of the long-term strategy being developed by *Infrastructure NSW* will naturally be a level of integration of the capital investment priorities across government, and will logically lend itself to achieving coordinated funding submissions.

3 *Infrastructure NSW* Act 2011 No 2.

3 Background to the Infrastructure Challenge

Historically, New South Wales has been well served by visionary and ambitious infrastructure planning.

The Sydney Harbour Bridge is a case in point. The iconic bridge was built with a deck of almost 50 metres and integrated road transport with both heavy and light rail – including six lanes for road traffic, two train tracks, two tram tracks and two footways. This capacity was delivered for daily vehicle crossings in 1932 of around 10,000 – today over 160,000 vehicles cross the Sydney Harbour Bridge every day.[4]

That vision and foresight meant that it was more than 72 years before an additional Harbour crossing was required, with the construction of the Sydney Harbour Tunnel.

More recently, a lack of consistency in strategic infrastructure planning has seen New South Wales endure a regrettable period of rapidly changing priorities.

Over the coming decades New South Wales faces a number of challenges that will serve to compound the problem of inadequate infrastructure. A growing population, changing demographics, constrained balance sheets and reduced productivity growth all make the challenge faced by New South Wales substantial and acute.

3.1 A Burgeoning Population

By 2056, Australia's population is expected to reach 37 million and the number of people living in cities is projected to increase from 13 million to 23 million.[5]

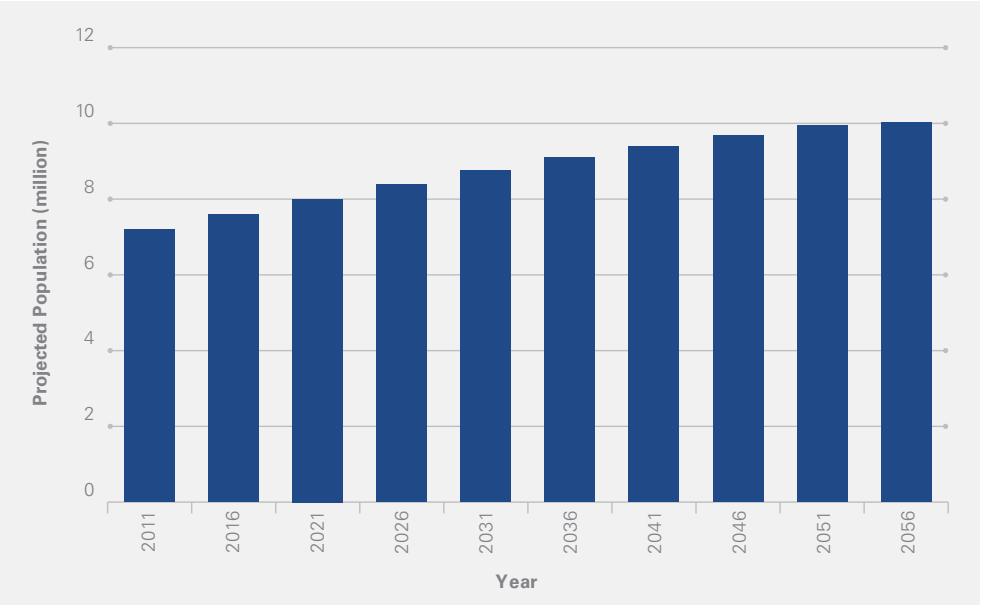
Figure 2 shows Australian Bureau of Statistics (ABS) Series B projections of the New South Wales population to 2056. Sydney is projected to be home to five and a half million people by 2026 and around seven million by 2056. NSW Government's own projections show Sydney's populations will rise by 1.3 million to 2031 generating a requirement for 570,000 more homes and 600,000 more jobs.[6]

4 IPA (2009) Meeting the 2050 Freight Challenge and Roads and Maritime Services, Summary of Week Day Traffic Volumes.
5 IPA (2009) Meeting the 2050 Freight Challenge.
6 NSW Government, Sydney over the next 20 years. A Discussion Paper, May 2012.

▼ Figure 2

ABS Series B projections of the NSW population to 2056

Source: Series B Projections, Australian Bureau of Statistics, Australian Population Projections 2011-2101 (3222.0)



More people will logically mean a substantially higher demand for passenger transport, logistics, utilities, healthcare and other social services.

The growth in demand will further compound the existing shortfalls across the broader infrastructure networks.

The now shelved CBD Metro Environmental Assessment noted, "The growth in demand for travel in Sydney is already outstripping population growth. The number of daily trips has grown across Sydney in the past two decades, with a 30 per cent increase in average weekday trips."[7] Within 10 years the demand for travel in the Sydney CBD is projected to have increased by almost one-third. Congestion already costs Sydney an estimated $5.4 billion annually – with an expected increase to $7.7 billion by 2020.[8] If this projected growth occurs without substantial, sustained, integrated and complementary transport infrastructure development, Sydney will see dramatic reductions in its liveability, productivity and sustainability.

Population growth will also impose additional budget pressures, because of a greater call for utility and social infrastructure services.

Infrastructure NSW must develop ambitious infrastructure plans that cater for a growing population but also harness the opportunities provided by that growth.

7 NSW Government (2009) CBD Metro Environmental Assessment, Sydney Metro Authority.
8 BITRE, Working Paper 71.

3.2 The Challenge of a Constrained Balance Sheet

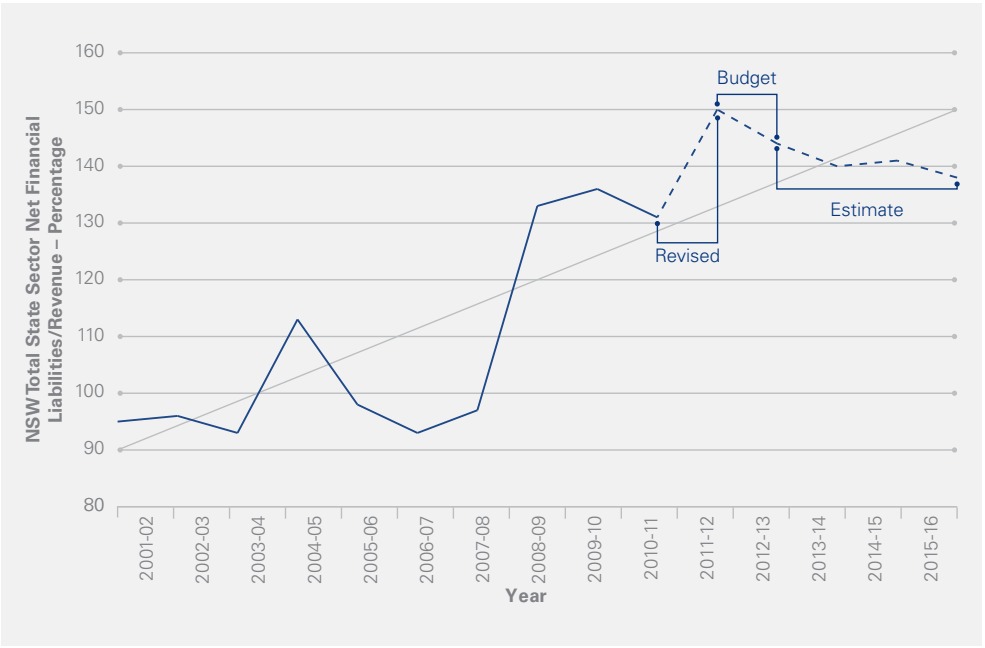
The 2012-13 New South Wales Budget estimates Total State Sector Net Financial Liabilities at 144.2 per cent of Revenue this financial year.

Figure 3 shows that ratio has risen from 94.5 per cent in 2001-02 to 149.6 per cent in 2011-12 and is set to remain above 140 per cent until 2015-16.[9] Over the next 40 years, on a 'no policy change' basis, expense growth in Social Security and Welfare will run at 6.6 per cent and Health will be 6.2 per cent where revenues are projected to average 4.9 per cent growth.[10]

▼ Figure 3

NSW Total State Sector Net Financial Liabilities as a Percentage of Revenue

Source: IPA Analysis of NSW Budget Papers 2012-13, Budget Paper No.2, Table 1.4



9 NSW Budget Papers 2012-2013, Budget Paper No.2, Table 1.4.

10 NSW Budget 2011-12, Long-Term Fiscal Pressures Report, Budget Paper No.6.

Set against this picture of a balance sheet under pressure, and social sector expense growth outstripping revenue growth, the New South Wales Government's capacity to fund the required infrastructure task is severely constrained, without substantial reform to the asset base of government, the cost and delivery model of services – and efficient infrastructure procurement and operation.

A key role for *Infrastructure NSW* is therefore the identification and championing of budget reform, and innovative financing options.

3.3 Economic Growth

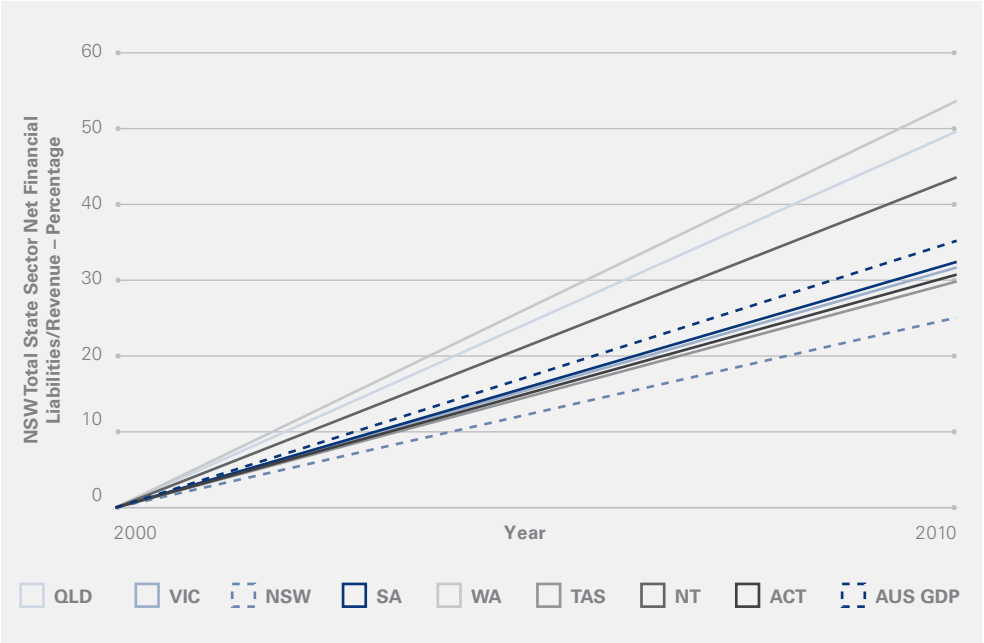
Relative to other Australian jurisdictions and the Australian average, economic growth in New South Wales has lagged.

Figure 4 shows 10-year Gross State Product (GSP) growth for Australian states[11] and Australian Gross Domestic Product (GDP) – resource rich states, Queensland and Western Australia, have had significantly above average growth but New South Wales has fallen well behind Victoria and the Australian average over the decade to 2010.

▼ Figure 4

10-Year State GSP Growth vs. Australian GDP Growth

Source: IPA Analysis, ABS National Accounts.



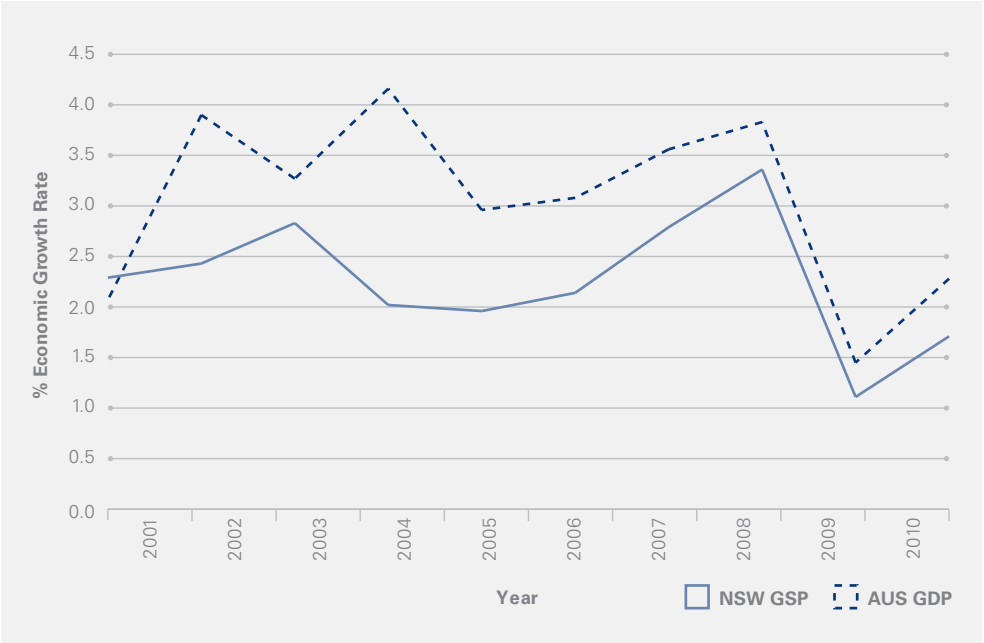
11 Tasmania and the Territories have been excluded.

When compared directly to year-on-year Australian GDP growth, New South Wales GSP growth followed a similar trend but has been markedly weaker over the last decade. Figure 5 tracks both growth rates over 2001 to 2010.

▼ Figure 5

NSW GSP Growth vs. Australian GDP Growth

Source: IPA Analysis, ABS National Accounts.



The relative decline of the New South Wales economy can be attributed, at least in part, to the shortfalls in its infrastructure asset base. Infrastructure and the services which it underpins form the input for businesses, meaning that inefficient pricing of infrastructure services, such as transport, energy and water have a direct impact on the competitiveness of the business sector and the New South Wales economy.

3.4 Productivity Growth

The broadest measures of productivity growth indicate that Australia has actually seen a decline in productivity in the last five years. Multi-factor productivity growth measures of the Australian economy have shown a steep decline since the late 1990s. Figure 6 below compares Australian labour productivity and multi-factor productivity since 1989-90 to 2009-10 with the Organisation for Economic Co-operation and Development (OECD) average.

▼ Figure 6

Labour and Multi-factor Productivity 'Growth'

Source: Cited in Grattan Institute: Australia's productivity challenge, 2010. Note: *OECD uses Conference Board Data. Labour productivity is GDP per capita (rather than hours for Australia). MFP (% change in market GVA divided by market GVA) is Total Factor Productivity (defined as % change in total inputs divided by % change in output. It is not apparent whether output includes non-market sectors nor whether inputs other than capital and labour have been included.

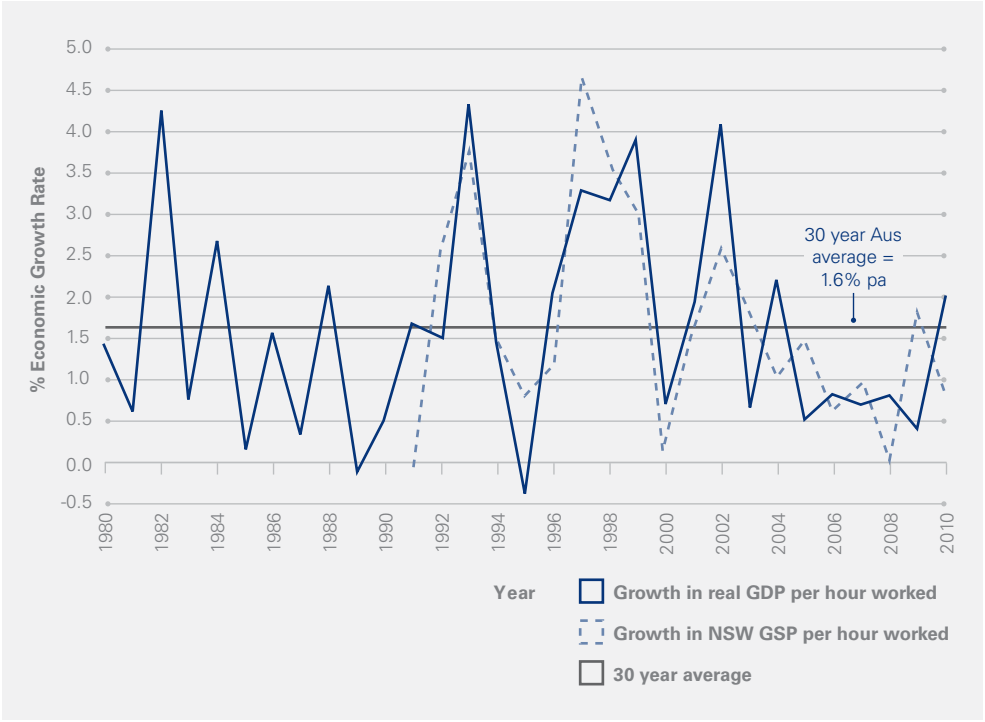
The Australian Bureau of Statistics does not publish state level productivity statistics; however, as a significant contributor to Australian GDP it is reasonable to assume that New South Wales will display broadly comparable characteristics.

Using 'hours worked' data, relative to GSP, the NSW Long-Term Fiscal Pressures Report 2011-12 found New South Wales labour productivity closely tracked the national rate. Whilst the rate displays year-on-year volatility, as shown in Figure 7, the New South Wales GSP per hour worked data broadly follows the national productivity trends.

▼ **Figure 7**

Real GDP and NSW GSP per hour worked

Source: NSW Budget 2011-12, Long-Term Fiscal Pressures Report, Budget Paper No.6.



The provision of infrastructure services directly influences the overall productivity of the economy. Economically efficient investment in infrastructure has a positive impact on productivity.[12] *Infrastructure NSW* should take account of productivity impacts in their overall planning and prioritise projects with the greatest potential to positively influence productivity, as well as social and environmental outcomes.

12 Productivity Commission: http://www.pc.gov.au/__data/assets/pdf_file/0007/79081/economic-modelling-infrastructure.pdf

4 Transport

Transport is arguably the most visible reminder of the State's infrastructure shortfalls. Congestion on the State's passenger and freight networks are more than an annoyance, imposing substantial economic costs on the State economy.

Transport will therefore form a fundamental aspect of the long-term strategy being developed by *Infrastructure NSW*. Transport for NSW (formerly the Department of Transport) has variously worked on substantial transport plans and this work, together with the long-term transport plan, should inform and guide the work of *Infrastructure NSW*.

The most acute area for focus must be the Sydney metropolitan area, given that it is the area in which freight and passenger network congestion is chronic and imposes the most substantial costs on the economy. However, regional and inter-urban transport connections must also form a priority.

Solutions to freight and passenger network congestion in Sydney are not easy. Sydney's transport network is comprised of an extensive legacy suburban rail network with some recent additions; a complex bus network; an incomplete orbital motorway system with an East-West spine; an underutilised ferry system; a small light rail network, and a network of congested un-tolled roads.

These assets combine to create a complex transport environment, creating challenges for the development of meaningful and integrated transport plans to reduce urban congestion.

Similarly, Sydney's geography makes the city unique in its transport challenges, due to a number of demographic, sociological and physical features, including:

- **A mix of low and high density** – Sydney's suburbs sprawl to the fringes and are commonly of a very low density, with post-war land-use planning defined by the prevalence of the 'quarter-acre block'. However some areas in the inner city are of a relatively high density, leading to a diverse mix of land-uses.

- **Dependence on motor vehicles** – As with other cities, the motor vehicle has long been identified as the primary transport mode for Sydney. This has led to a city which has been planned around road development at the expense of an integrated transport system.

- **Undulating terrain** – a commonly overlooked feature of Sydney is that it is a relatively hilly city, particularly in the inner suburbs. This topography provides unique challenges to road and public transport infrastructure provision – often requiring tunnelling, and also serves to discourage cycling and walking.

- **A vibrant and productive, but non-central CBD** – Sydney's CBD remains a key economic and employment hub. The growth of Sydney's outer regions means that the CBD is no longer geographically central, extending the length of journeys for many workers accessing the CBD.

- **A wide harbour** – the width and breadth of Sydney Harbour presents unique challenges for the city. The Harbour's reach westward also creates issues for tunnel boring and road network development.

This section makes a series of recommendations about the approach to transport that should be adopted in *Infrastructure NSW*'s work programme.

4.1 Integrated Land-use and Transport Planning

The importance of integrating transport and land-use planning is self-evident. The development of new land for residential, commercial or other uses drives transport demand.

For instance, the establishment of a new residential development will generate commuter journeys to and from the workplace, local commercial deliveries and leisure travel. Despite the well-established and well-understood link between development and transport demand, the formal link between urban land-use and transport planning has been ad hoc – and at times peripheral to the planning process in both portfolios. *Infrastructure NSW* must work across Government agencies to establish a formal linkage between land-use and transport planning.

Recent experience of land-use and transport planning strategies in various states and territories, including the NSW City of Cities Strategy and the Urban Transport Statement, illustrate a clear disconnect between the planned population growth strategies and the development of new, supporting transport infrastructure.

By contrast, the former Queensland Government's South East Queensland Regional Plan, which incorporates the Southeast Queensland Infrastructure Plan, provides a long-term integrated strategy closely linking land-use planning with the development of transport and other infrastructure. The Southeast Queensland Infrastructure Plan was subsequently supported by the Queensland Infrastructure Plan and Queensland Regionalisation Strategy which aimed to further integrate land-use planning with development of infrastructure.

Given the population growth projected for the Sydney Basin, there is a pressing need to increase density across the urban region, and to co-locate employment, leisure and residential precincts, alongside convenient and high-quality mass transit. *Infrastructure NSW* must work closely with planning and transport agencies to ensure optimal integration.

Land-use planning must also be effectively linked with planning and development of freight transport, to ensure intermodal hubs and major freight corridors are effectively located, and similarly that transport infrastructure is in place to cater for major freight growth.

4.2 Network Tolling

Road network congestion is a major challenge. To date, solutions have almost exclusively focussed on providing new road capacity. The existing and projected levels of congestion mean that New South Wales will have to look beyond supply side solutions and include demand management options.

The use of time of day pricing across Sydney's motorway network is a desirable policy option, because it could be used to shape demand on the road network, with additional revenues used to fund the development and expansion of the transport network.

In 2009, Infrastructure Partnerships Australia produced a major report on the opportunity to integrate tolling mechanisms across the network. That paper is attached as Annexure one.

4.3 Tripling of the Freight Task

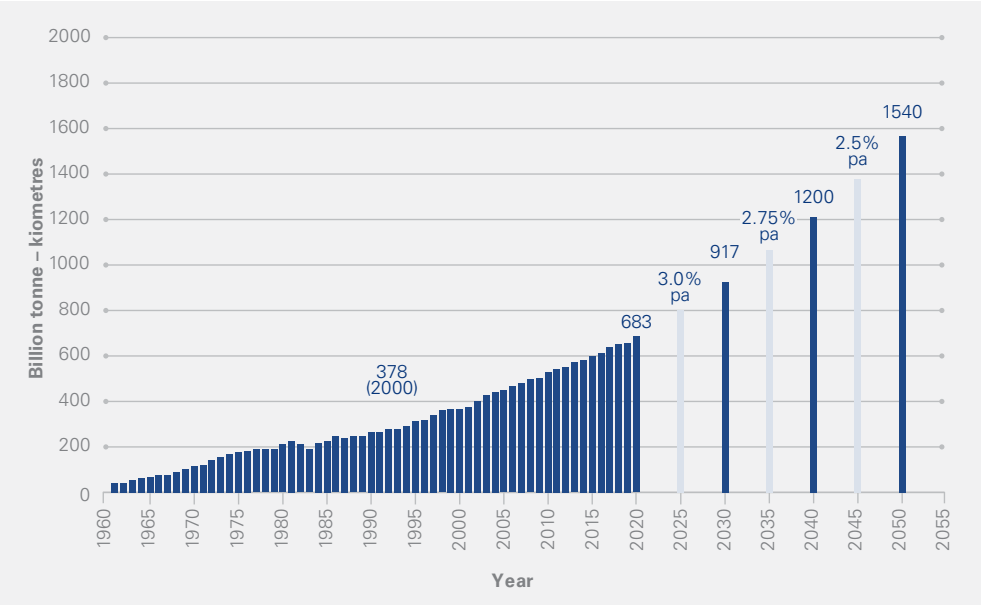
Modelling for Infrastructure Partnerships Australia forecasts significant growth in freight transport demand, with the volume and distance of freight movements set to triple by 2050.

Modelling for the report – shown in Figure 8 – found the domestic freight task of 504 billion tonne kilometres in 2008 would reach 1,540 billion tonne kilometres by 2050 – a tripling of freight distance and volume.

▼ Figure 8

Figure 8: Australia's Domestic Freight Growth, 1961 – 2050

Source: IBISWorld in IPA – Meeting the 2050 Freight Challenge



Projections prepared for the 2010 New South Wales Government submission to Infrastructure Australia found that, even with significant and aggressive investments in planned port intermodal terminals, at current growth levels the number of Twenty-Foot Equivalent Units (TEU) required to be moved by truck to and from Port Botany would grow from 1.46 million in 2016 to over 10 million TEU by 2041.[13] Total 'likely' throughput projections for Port Botany exceed four million TEU by 2022 and more than 12 million by 2038.[14] Accommodating growth of that quantum is clearly beyond existing infrastructure and investment plans.

13 SAHA International, NSW Container Freight Improvement Strategy Preliminary Economic Evaluation, August 2010.
14 Ibid.

Supply chain costs remain a significant burden on the economy, with up to 10 per cent of the final cost of a product derived from its transportation. Continued capacity constraints including those on the north-south freight corridor and those affecting Sydney's Port Botany will therefore have significant impacts on the national and State economy.

Infrastructure NSW has rightly identified the Port Botany and airport precinct as an area of focus, but it should not isolate its assessment to the area immediately surrounding the port – instead fully assessing the State's critical supply chain networks to identify bottlenecks, pinch points and priority projects.

Infrastructure NSW will need to take a lead role in articulating the importance of addressing freight infrastructure needs. As an area that often takes a back seat to the political significance of passenger transport priorities, freight needs have often been subordinate to other priorities – *Infrastructure NSW* must prioritise projects and reforms which enhance the State's freight capacity and productivity.

Infrastructure Partnerships Australia undertook a major report into the reform of Sydney's port and airport precinct in 2006. That paper is attached at Annexure two.

Infrastructure Partnerships Australia's report into the growth of Australia's freight task is attached at Annexure three.

4.3.1 Intermodal terminals

A key component of a joined up infrastructure strategy must be the development of an intermodal strategy for New South Wales. Efficient intermodal terminals present a clear opportunity to reduce truck movements on Sydney's congested road network and reduce deadweight supply chain costs for the State's businesses.

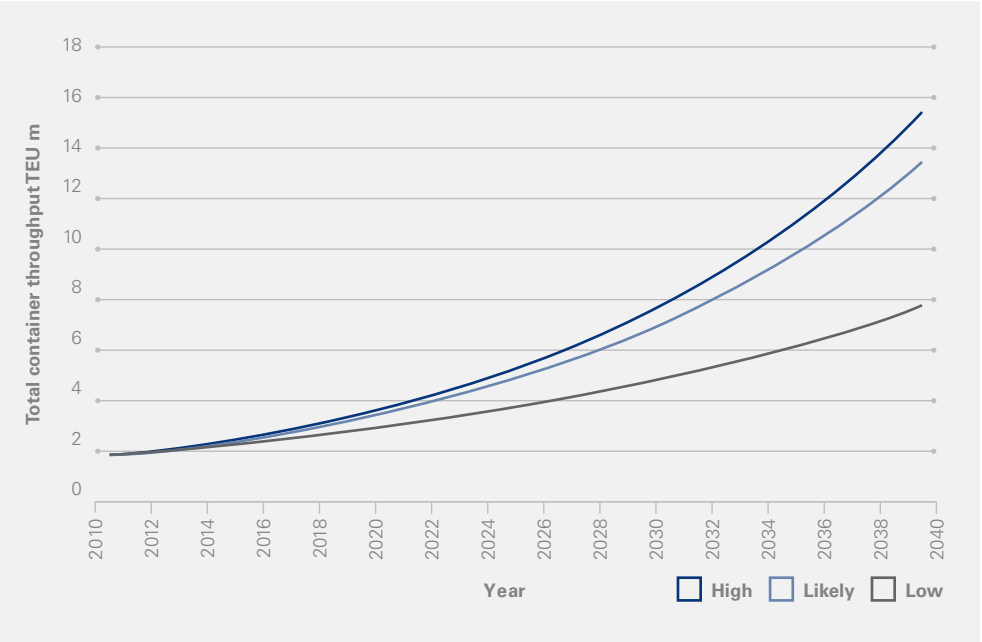
Sydney's container throughput has grown at an annual average of 7.6 per cent since the early 1970's with volumes, which recently passed two million per annum, set to continue to grow at a similar rate.[15] Future container growth projections for Port Botany are demonstrated in Figure 9 below.

15 SAHA International, NSW Container Freight Improvement Strategy Preliminary Economic Evaluation, August 2010.

▼ Figure 9

Port Botany Total Container Throughput Projections

Source: SAHA International (now Deloitte), NSW Container Freight Improvement Strategy Preliminary Economic Evaluation – based on Sydney Port Corporation trade data.



Even with aggressive delivery schedules on planned Intermodal Modal Terminals (IMTs) at Enfield and Moorebank, rail capacity from Port Botany could be reached by as soon as 2016 – and rail modal share would plummet in the following years. With a proposed IMT at Eastern Creek also online, on current growth trajectories, more than 10 million TEU annually would need to be transported by truck in 2041.[16]

Transport for NSW (*TfNSW*) has restructured to include a dedicated freight and logistics focus. *Infrastructure NSW* should work collaboratively with that Department to identify a long-term freight and intermodal strategy, including the protection of sites for future intermodal terminals.

16 Ibid.

4.4 Building for Future Capacity

In recent decades, infrastructure in New South Wales has been planned and delivered without sufficient latent capacity to provide for long-term growth. This means the urban transport network must now duplicate recently delivered infrastructure because of a failure to plan for growth.

However, infrastructure projects with latent capacity in the early years of operation – such as the Cross City and Lane Cove Tunnels – are often criticised for low or relatively low patronage numbers.

When the Sydney Harbour Bridge was planned and constructed in the 1920s, the road was planned with significant road, light and heavy rail capacity to provide for a rapidly growing city. The benefit of foresight is clear – it was 72 years before the Harbour Tunnel was required, and Sydney's CityRail system still operates with the same cross-harbour capacity as it did in the 1930s.

Conversely, the M5 East tunnel opened in 2001 with two lanes of traffic in each direction, but was at capacity almost immediately. During procurement of the $800 million project the private sector indicated that a further lane in each direction could be added for an increase in the total cost of less than $100 million, but the proposals were rejected by the then NSW Government. The cost of duplication of the M5 East is now estimated to be $5.2 billion, with commuters and freight operators suffering the cost and inconvenience of capacity shortfalls until the upgrade is delivered.

Infrastructure NSW's infrastructure strategy should therefore consider long-run demand projections for new transport projects and resolve how appropriate latent capacity can be delivered efficiently.

4.5 Preserving Corridors for Future Transport Infrastructure

Many transport projects required in the long-term are known now, and steps should be taken to preserve the corridors for these routes to future-proof the State and ensure costly land acquisition is not a burden on the balance sheet.

For instance, the F6 Extension corridor was preserved in 1951 and will undoubtedly be required in the future to provide road and mass transit links and better connect Port Kembla into Sydney's road network. The *Infrastructure NSW* strategic planning process presents a prudent opportunity to specify corridors which will be required in the future, such as that for an M9 and F3-M7 in Sydney, a Metro network, potential CityRail corridors through the Sydney CBD and for an interstate High Speed Rail network.

Corridors reserved for transport development can also be utilised for other purposes, in essence bundling services on corridors. Such corridors may well add value in due course as routes for communications links, utilities, cycleways, parks and wetlands and even power generation, as well as being multi-modal transport corridors.

Infrastructure NSW must look beyond the 20 year strategic horizon to identify corridors that require preservation before it becomes prohibitively expensive or impossible to do so.

4.6 Resolving the Role of Rapid Transit

New South Wales will need a mass transit metro rail system in the medium-term. *Infrastructure NSW* must play its part in engaging the public in a conversation around the requirement and scope for metro.

Metro offers a different type of service from that of traditional suburban rail, and is designed to serve high demand corridors with very frequent service. Such corridors may include areas where the heavy rail system cannot continue to cope with demand (i.e. CBD – Parramatta), or corridors where buses will not be able to cope with future growth (i.e. Victoria Road, Military Road, Anzac Parade).

The network designs for the formerly proposed Sydney Metro system, showed a staged programme of network rollout to match the demands of growth and provide a catalyst for high density. These designs and planning should be the starting point for engaging the public in a reasoned debate about the need for a mass transit system.

Much of the preliminary feasibility and demand analysis for such a network has already been done, so it is important not to discard this critically important work, and use it to lead the public in an informed debate around the future role of a metro system.

Advising the New South Wales Government on the preservation of subterranean corridors and station locations must be a priority for *Infrastructure NSW*. As part of broader transport framework, New South Wales must develop a specific metro plan which details a staged rollout and delivery options.

4.7 Regional NSW Transport

Infrastructure NSW must bring a strong focus on solving transport challenges across the Greater Sydney region; but it must not neglect the significant and important infrastructure backlog in regional New South Wales.

Regional New South Wales has benefited from significant long-run investments by Roads & Maritime Services and its predecessor organisations.[17] More recently, with support from Commonwealth funding programmes such as the Nation Building Programme, major interurban corridors such as the Pacific and Hume Highways – as well as major regional roads – have received valuable investment.

However, the duplication of the Hume and Pacific Highways remain an unfinished national priority. The use of proceeds from the proposed sale of Port Botany to fund Pacific Highway upgrades is a welcome indicator of the New South Wales Government's determination to complete this vital project – the delivery of which will provide significant productivity uplifts by easing freight movements and important safety outcomes for motorists.

Another major priority is regional passenger rail – primarily provided by the CountryLink rail (and bus) network. This network has suffered from decades of underinvestment and offers a mode which cannot compete with the private motor vehicle on either speed or comfort.

Similarly, there remain significant issues with interstate freight rail networks. The upgrade of freight rail will underpin improved services, allowing it to compete with road freight and freeing up capacity for passenger services. The requirement to move road freight onto rail is more than just about increasing efficiency – it will also deliver a significant safety dividend, with rail transport up to 20 times safer than road transport.

Sydney and its surrounding regions will continue to remain the economic heart of the State. It is therefore logical that this region remains the greatest focus for *Infrastructure NSW*. However, improving regional freight networks, upgrading regional and intercity passenger rail, and the completion of road upgrades including major highway duplications, should also form a basis of long-term transport planning.

17 Roads & Maritime Services replaced the Roads & Traffic Authority and NSW Maritime on 1 November 2011.

5 Energy

By reforming its electricity sector, New South Wales has before it a generational opportunity to address its infrastructure shortfalls, as well as to put in place the right market settings for driving down power prices for the State's households and businesses. In this context, and given the broader productivity benefits that would flow from reform, *Infrastructure NSW* has a key stake in driving progress towards a wholly private electricity market.

The decision by the NSW Government to divest itself of State-owned generation businesses, and the recent successful passage of enabling legislation through the State Parliament, is a welcome step forward in this regard. The benefits of an increasingly private and competitive National Electricity Market (NEM) have been well demonstrated, with wholesale energy costs halving (in real terms) over the last five years.[18]

In addition to inherent price impacts, the sale of New South Wales's electricity generation assets is expected to deliver $3 billion in capital proceeds, and will save State taxpayers $850 million in avoided ongoing operation and maintenance costs.[19] Longer term, the sale of generation assets has the potential to save the State's taxpayers a further $6 billion in costs to meet future generation capacity needs.[20] With NSW accounting for over a quarter of national energy consumption, privatisation of generation businesses will also remove a longstanding roadblock to the achievement of a truly competitive and efficient NEM.

But while progress has now been made in respect to electricity retail and generation, the reform of electricity networks has, until now, consistently failed in NSW.

This historical failure to overhaul public ownership of network businesses has ultimately been borne by the State's energy consumers in the form of higher electricity prices. Between 1995 and 2010, electricity prices in NSW increased by close to 70 per cent, compared to 50 per cent across the NEM. In Victoria, which privatised its network businesses from 1997-1999, prices rose by just 34 per cent.[21] Tellingly, in the fifteen years preceding privatisation in Victoria (1980-1995) electricity prices in New South Wales and Victoria were neck and neck, rising 35 per cent and 34 per cent respectively.[22]

Increased network investment has been a major contributor to rising electricity prices across all NEM states in recent years; however, there is strong evidence to suggest that network spending has been consistently lower, and quality of service higher, where networks are privately-owned and operated.

This is clearly illustrated by a comparison of real capital expenditure per customer from 2000 to 2015, with New South Wales distributors spending four times more per connection than distributors in Victoria (see Figure 10).[23] This higher level of network spending in New South Wales (and Queensland) comes despite Victoria having experienced stronger growth in demand and customer numbers over this period, and despite the New South Wales network assets being on average newer than their Victorian counterparts.[24]

18 Speech by the Federal Minister for Energy, Resources and Tourism to the CEDA State of the Nation Conference, June 2012. Available at: http://minister.ret.gov.au/MediaCentre/Speeches/Pages/CEDAConference.aspx

19 Media Release, The Hon Mike Baird MP, 31 May 2012. Available at: http://www.treasury.nsw.gov.au/__data/assets/pdf_file/0017/22373/NSW_to_win_from_historic_sale_of_power_assets.pdf

20 Ibid.

21 IPA analysis based on ABS data.

22 Ibid.

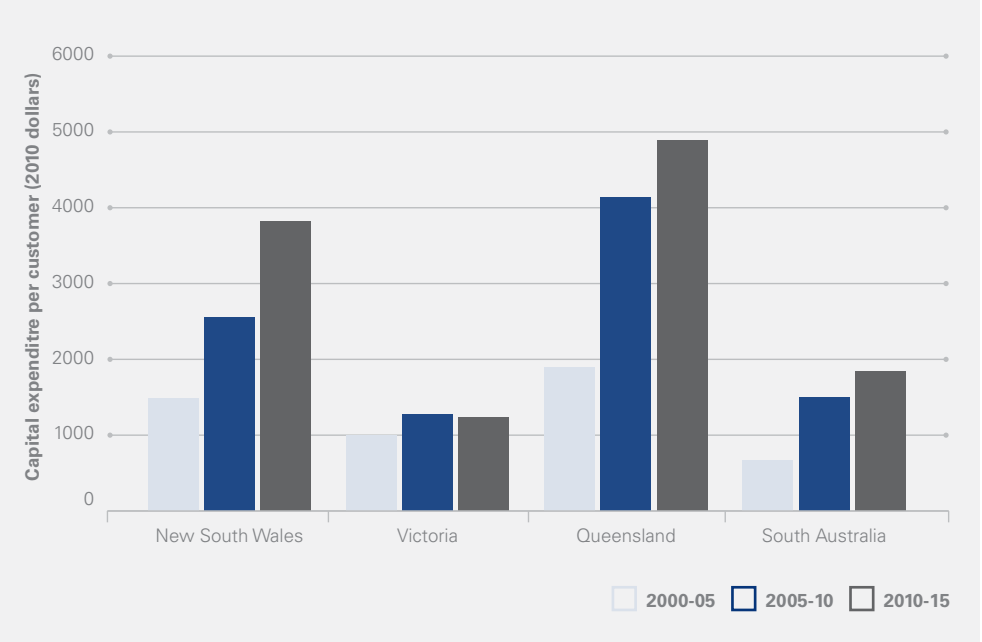
23 Energy Users Association of Australia (EUAA), 2010. Available at: http://www.euaa.com.au/wp-content/uploads/2011/02/110516-overview-of-the-report-BM.pdf

24 Ibid.

▼ Figure 10

Real capital expenditure per customer

Source: EUAA, 2011



The 2011 Garnaut Review further reinforced this marked divergence in the efficiency of public and private network owners. The report found that state government owners "have an incentive to overinvest because of their low cost of borrowing and tax allowance arrangements", and are "impacted by political concerns about reliability of the network, and about the ramifications of any failures".[25]

With investment in transmission and distribution networks representing an ever-increasing proportion of the typical household electricity bill in New South Wales, capturing the efficiencies available through the introduction of private ownership will become vital.

Price impacts aside, the privatisation of network businesses also represents a generational opportunity to address New South Wales' infrastructure shortfalls.

Over the next four years the electricity sector will consume 25 per cent of the State's total capital budget, with network investment accounting for close to 100 per cent of this amount.[26] This is close to four times the infrastructure investment in health, and eight times the level of infrastructure investment in education over the same period.[27]

25 Garnaut Review, 2011. Available at: http://www.garnautreview.org.au/update-2011/garnaut-review-2011/garnaut-review-2011.pdf
26 2012-13 NSW Budget. Budget paper No.4.
27 Ibid.

Valuations undertaken by Infrastructure partnerships Australia show that full privatisation of New South Wales distribution and transmission businesses could realise between $29.2 and $34.5 billion in capital proceeds. Coupled with a further $15.3 billion in required investment transferred from taxpayers to the private sector over the next four years alone, the sale of networks would increase the budgets capacity to deliver infrastructure investment by more than $50 billion.

Infrastructure NSW should articulate and support the benefits of a full privatisation of State-owned network businesses, with net sale proceeds allocated to Restart NSW for investment in productivity boosting infrastructure. *Infrastructure NSW* also has a critical role in identifying where the proceeds of asset sales can be put to their most effective use.

6 Water

6.1 Metropolitan Water

A reliable, high quality and efficiently priced urban water sector is critical to the functioning of New South Wales. The prioritisation of capital spending on supply augmentation, as well as the market structures underpinning water and wastewater infrastructure and services, should therefore be areas of focus for *Infrastructure NSW*.

Population growth coupled with a historical reliance on rain-dependent sources of supply have seen state governments invest heavily in desalination in recent years, as well as take steps to improve the management and delivery of water and wastewater infrastructure and associated services. In New South Wales, this approach has been spearheaded by the $2 billion Kurnell desalination plant, which has capacity to supply up to 90 gigalitres annually, or 15 per cent of Sydney's current potable water needs. New South Wales has also led the way in facilitating private sector access to water and wastewater infrastructure by establishing – through the Water Industry Competition Act 2006 (WICA) – Australia's first third-party access and licensing regime. Several ground-breaking projects have already been established under WICA, including the $100 million Rosehill-Camellia Recycled Water Scheme, and the Water Factory Company's wastewater treatment plant at Pitt Town in North Western Sydney.

While WICA is working well and should continue as the principal mechanism by which private sector participation is encouraged and overseen, there is clear scope to further improve it. In particular, WICA has yet to facilitate private sector involvement in the sector beyond water treatment and re-use. Given the capital constraints facing public utilities as well as the need to drive greater efficiencies in the sector, there is clear value in the Government exploring opportunities to utilise private sector innovation and finance above and beyond current levels.

As a result of these developments the State's water sector is more efficient, secure and better able to adapt to changing environmental conditions. However, the Government must continue to plan a long way in advance to ensure that this progress is maintained, and to ensure that supply continues to meet the demands of a growing population and economy.

In particular, the Government must explore opportunities to increase efficiencies and innovations in the rollout of water and wastewater infrastructure in new growth areas. Sydney Water expects to spend over $1 billion to service growth over the next five years, with over 90 per cent of this amount allocated to servicing priority new housing sites in the North West and South West Growth Centres, the Illawarra and Western Sydney.[28] *Infrastructure NSW* must work with government agencies and public utilities to ensure additional capacity meets demand in the most efficient way.

Better utilising private sector capacity to finance, construct, and operate water and wastewater infrastructure in these areas – including through instruments such as PPPs (with appropriate risk transfer and balance sheet structures) – may assist to reduce the upfront infrastructure costs for public utilities and private developers, at the same time assisting with broader sustainability objectives such as recycling and stormwater capture.

28 Sydney Water 2011 Annual Report. Available at: http://www.sydneywater.com.au/Publications/Reports/AnnualReport/2011/pdf_files/performance.pdf

Equally, while continued investment in water infrastructure and services is unavoidable; the view that public sector water utilities should deliver all of this required investment is rightly being challenged. Longer-term, there is no reason why the water sector cannot realise the same benefits that increased private sector engagement has brought to other essential sectors, such as telecommunications and energy. Ultimately, the success of this approach, and of each individual project, will come down to whether or not it makes commercial sense, and whether it provides value for money for consumers.

Infrastructure NSW must, in the context of its long-term strategy, consider and resolve potential future sources of bulk water (such as locations for new dams, desalination plants and others) to ensure that capacity is prioritised to meet demand.

7 Social Infrastructure

7.1 Health

Like all Australian states and territories, New South Wales faces significant challenges in meeting the growing costs of health care expenditure. In 2012-13, health attracted the largest single share of the State Budget with $16.5 billion (27 per cent),[29] and despite this record expenditure the health system is not meeting the demands placed upon it.

Hospitals in New South Wales are experiencing high levels of demand. In 2010-11 there were 2,594,691 hospital separations across all hospitals in New South Wales.[30] This has continued to increase in recent years, growing an average of 3.4 per cent per year since 2006-07.

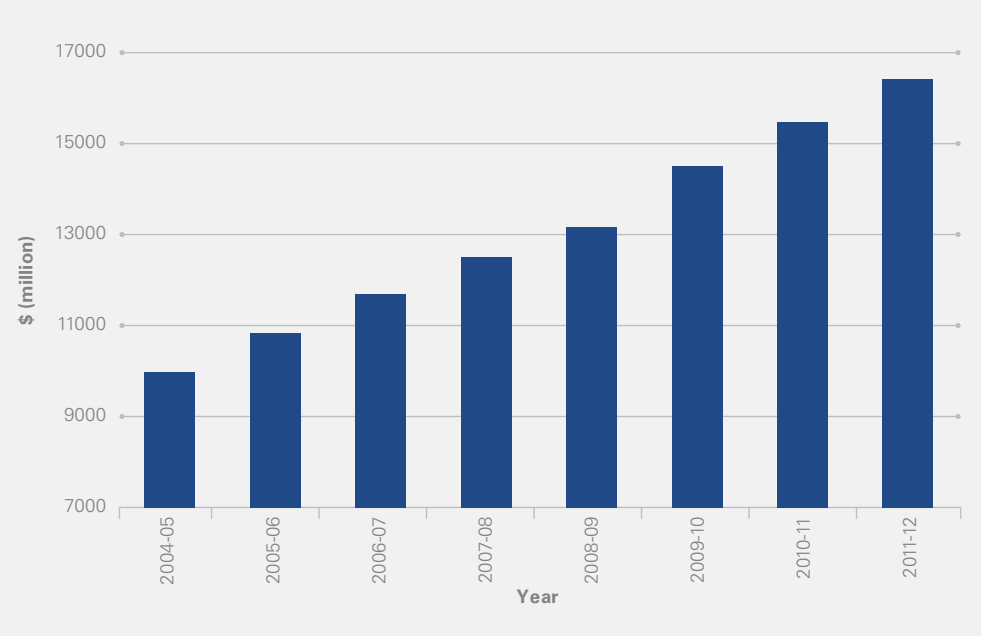
On an average day 4,900 people are admitted to a public hospital in New South Wales and 17,000 people spend the day in one of our public hospitals.[31] During January to March of 2011 alone, more than half a million patients attended emergency departments in public hospitals. This was four per cent higher than the same quarter in 2010, and eight per cent higher than the same quarter in 2009.[32]

As the State's hospitalisation rate increases, so does the operating spend. This is reflected in the growing recurrent health expenses budget, as shown in Figure 11.

▼ **Figure 11**

New South Wales Recurrent Health – Expense Budget, 2004-05 to 2011-12, ($ millions)

Source: IPA analysis of NSW Health Budget 2004-05 to 2011-12



29 NSW Budget 2012-13, BP 2.

30 AIHW Australian Hospital Statistics 2010-11; The term "separation" refers to the process by which an episode of care for an admitted patient ceases. A separation can result from discharge, transfer, death, or change of care type.

31 http://www.health.nsw.gov.au/hospitals/going_to_hospital/cost_of_care.asp

32 http://www.bhi.nsw.gov.au/__data/assets/pdf_file/0014/153140/HQ4_EmergencyDepartment_January-March2011_MASTER.pdf

This trend is projected to continue over coming decades due to a growing and ageing population, the growing burden of chronic disease and the increasing costs associated with medical technology. As the demands on the health care system increase, so too will the required health care spend. New South Wales needs to improve the outcomes from health spending to contain the upward pressure on health care costs.

Infrastructure NSW should work with NSW Health and Health Infrastructure (the division of NSW Health responsible for health infrastructure planning) to determine when and where future health care capacity should be delivered. *Infrastructure NSW* should also work with government departments to determine where existing health infrastructure assets require significant upgrade and/or replacement.

7.1.1 Health network planning

Rather than reacting to population growth and ageing, health services and infrastructure across the entire network must be planned in advance so that the supply and demand for health services align – *Infrastructure NSW* is positioned strategically to assess and advise on investment in health network infrastructure and ensure it meets the needs of a growing population. *Infrastructure NSW* is also well placed to make a strategic assessment of how capital investments in health infrastructure can be better integrated with other public services such as transport and utilities.

Health network planning should be guided by demand analysis which determines the most likely impact on service demands from changing demographics. This includes what quantities and types of services are likely to be required in particular locations.

Building the right infrastructure is vital to building an effective primary health care system in New South Wales and should be a core focus of the prioritisation work being undertaken by *Infrastructure NSW*.

Effective health services can't be planned in isolation from other infrastructure investments, meaning *Infrastructure NSW* has an important role to play in ensuring capital spending in healthcare is aligned to need and integrated into a wider infrastructure context.

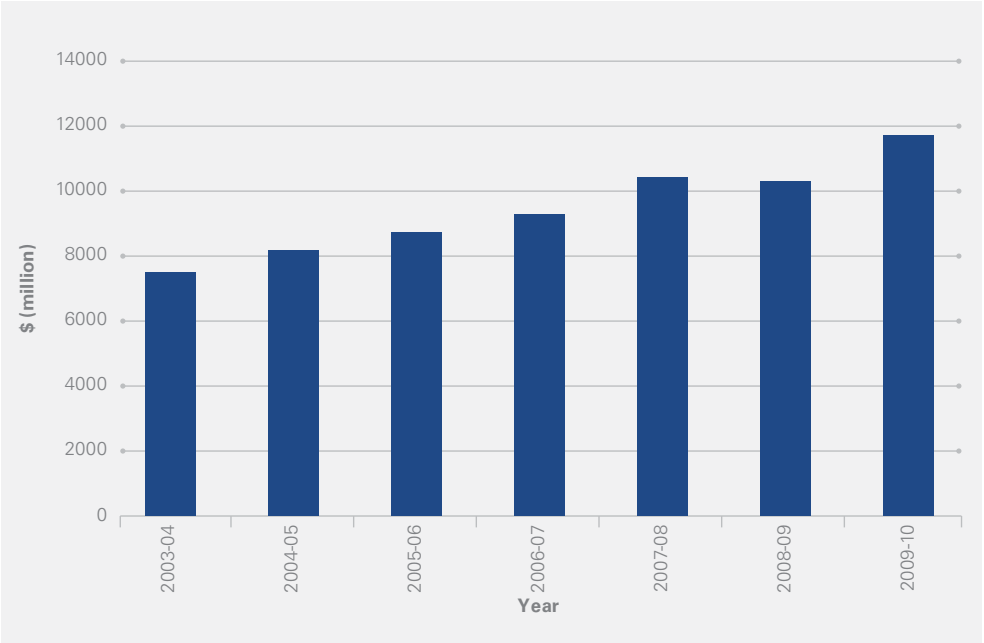
7.2 Corrective Services

Corrective services should provide a safe, secure and humane custodial environment in which the needs of prisoners are effectively managed and the risk of their re-offending reduced. Achieving these aims is becoming increasingly expensive for New South Wales taxpayers. As shown in Figure 12, the total annual cost of correctional services in New South Wales increased from $752 million in 2003-04 to $1.179 billion in 2009-10.[33]

▼ Figure 12

Total Annual Cost of Correctional Services in NSW – 2003-04 to 2009-10

Source: IPA Analysis, Corrective Services NSW, Facts and Figures Series, 2005 – 2011



In the 20 years to 2008, the New South Wales prison population grew from fewer than 4,000 to more than 10,000. At a yearly cost of $75,000 per prisoner, New South Wales is now spending more than $1.1 billion annually on its prison system – more than one-third of the amount spent nationwide.

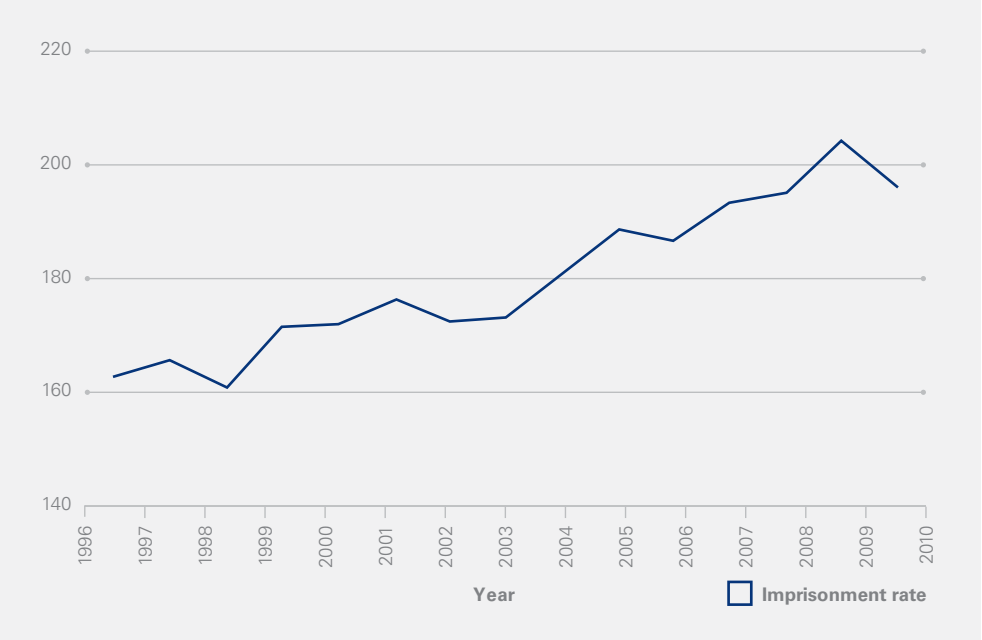
The growing cost of correctional services can, in part, be attributed to New South Wales' growing population. As the population in New South Wales grows, demand for all public services – including corrective services – is expected to increase proportionally. However, the rate of incarceration per capita has also grown steadily over the last three decades – Figure 13 shows the rate of incarceration per 100,000 adults over the past 15 years. In 1996 there were 163 prisoners in New South Wales per 100,000 adults in the population, and by 2010 this had grown to 196 per 100,000 adults.[34]

33 Corrective Services NSW, Facts and Figures Series, 2005 – 2011.
34 Australian Bureau of Statistics, Prisoners in Australia, 2000; 2010.

▼ **Figure 13**

NSW Imprisonment Rate; Prisoners per 100,000 Adults

Source: IPA Analysis, Australian Bureau of Statistics, Prisoners in Australia, 2000; 2010.



With a growing New South Wales population, growing costs to provide prison services and growing incarceration rates, the efficiency and value for money achieved in the corrective services sector, and opportunities to increase the quality of services, are critically important.

Infrastructure NSW should work with the Government to determine the right locations and operating models for the next round of investment in correctional facilities. *Infrastructure NSW* should also work with the Government to determine whether the current operating models at existing facilities are achieving the best outcomes for the State. Lowering the cost burden of incarceration on the public purse – including the cost of re-offending – is crucial in an environment of an increasing prison population and the growing cost of provision. *Infrastructure NSW* should also work with Corrective Services NSW to determine the most appropriate model of infrastructure and service delivery at the best value for taxpayers.

7.3 Public Housing in New South Wales

Public housing in Australia provides an important protection for households unable to acquire or sustain housing in the private market. At 30 June 2009 there were 145,230 households in New South Wales in public housing.[35]

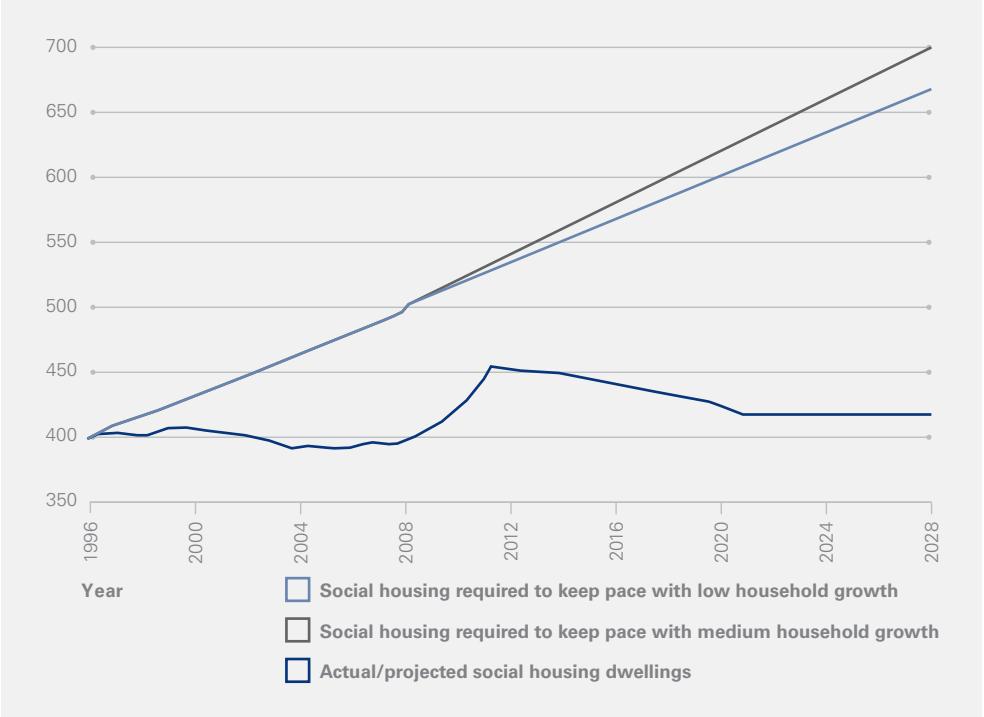
The public housing sector in jurisdictions across Australia has experienced a long period of under-investment, as new public housing and maintenance of existing stock compete for expenditure allocations with other government priorities. Similar to other public services, demographic pressures and tight fiscal conditions are adding to the public housing supply backlog.

Projections indicate that the demand for public housing rental properties across Australia will increase by an estimated 28 per cent between 2008 and 2023.[36] Projections for New South Wales are in line with this wider trend, with demand for public housing in New South Wales expected to continue to exceed supply for the foreseeable future – as shown in Figure 14.[37]

▼ Figure 14

Figure 14: Social Housing Supply and Demand Projections, Australia, 1996 to 2028

Source: A Progress Report to the COAG from Commonwealth, State and Territory Housing Ministers – Implementing the National Housing Reforms, November 2009.



35 Australian Institute of Health and Welfare, A profile of social housing in Australia, September 2010.
36 Department of Families, Housing, Community Services and Indigenous Affairs, Regulation and Growth of the Not-For-Profit Housing Sector: Discussion Paper.
37 Housing NSW, Background to the Acquiring New Public Housing Policy, 2011.

Much of the existing housing stock in New South Wales is ageing, requiring maintenance and renewal, and in need of reconfiguration due to an ageing population and the increasing demand for single-occupancy dwellings. The size, location, design, and amenity of existing dwellings largely reflect the needs of past, rather than the needs of present and future tenants.[38]

Infrastructure NSW should consider social housing in its broader infrastructure planning, including location, volume and configuration of housing stock. Done right, strategic planning for social housing development will ensure investments leverage off existing and planned investment in transport, utility and social infrastructure – delivering improved outcomes for social housing tenants and better value for taxpayers.

38 Ibid.

8 Critical Projects

The following State significant projects should be assessed and considered by *Infrastructure NSW* within the context of the 20-year infrastructure strategy and five-year rolling infrastructure plans. The list is not exhaustive, but each of the projects is critical to the State's economic competitiveness and liveability.

Given the scarcity of available funding, *Infrastructure NSW* must rigorously evaluate the merits of each project and develop a sequencing schedule that gives the community and industry certainty. *Infrastructure NSW* must also consider the funding and financing requirements of these critical projects, including the use of user-pays and private sector provision through PPPs wherever appropriate.

8.1 M5 East Duplication

The need to duplicate the M5 East has become essential and pressing due to the existing tunnel reaching capacity, particularly in light of future freight growth from Port Botany.

The M5, and in particular the M5 East Tunnel, experiences severe congestion during peak periods; the average morning peak speed on the motorway in 2006 was 44km/h, in 2010 this decreased to 35km/h. Upgrades to other areas of the corridor are expected to ease congestion with capacity enhancements, but the M5 East Duplication remains a crucial upgrade in the Sydney network.

Infrastructure Partnerships Australia considers this project should be prioritised within the short-term to meet future growth. This project also emphasises the need to plan the next suite of projects with latent capacity so they are future-proofed to meet projected demand.

Estimated Project Cost: $5.2 billion ($2012)

8.2 Northern Beaches Health Services

Progressing the proposed new metropolitan hospital at Frenchs Forest is critical to ensuring patients in Sydney's Northern Beaches can access high quality health services and facilities locally.

The new hospital at Frenchs Forest, a complementary Hospital campus at Mona Vale and consolidation and co-location of Community Health services across the Northern Beaches will deliver enhanced health outcomes through provision of services better matched to demand.

The proposed Level 5 acute care hospital at Frenchs Forest should include an emergency department, intensive care unit, maternity services, paediatrics, a variety of medical and surgical services, and improved diagnostic facilities.

Estimated Project Cost: TBC

8.3 M4 East

An upgrade of the road network from the end of the M4 at North Strathfield to the east and south of Sydney is a critical project to enhance productivity and liveability in the city; the completion of the M4 to the east would also provide crucial freight and passenger capacity to service the port and airport precinct.

These requirements necessitate an underground roadway of at least two prongs – one connecting the M4 with the Anzac Bridge, and a branch line from the M4 East to the port precinct in the south (either through a Marrickville Tunnel, Inner West Tunnel or Annandale Tunnel alignment).

The Roads 2000 plan set in place a strategy to promote three expressway grade links to the CBD from the city's west. The M4 Corridor is the only one of the three which has not been completed, following commissioning of the Lane Cove Tunnel in 2007.

Estimated Project Cost: $9.5 billion ($2010)

8.4 F3 – Sydney Orbital Links

For some time, the development of a direct road (or roads) between the F3 north of Sydney and the Sydney Orbital Network has been in planning. In 2004, SKM undertook a study of route options on the potential corridor, concluding that a route under Pennant Hills Road would be the best solution.

In 2007, a Federal Government review undertaken by the Hon. Mahla Pearlman AO concluded that SKM's assumptions in this study were valid, and made recommendations for the development of the link.

The study recommended that a link between the end of the F3 at Hornsby to the M2 Motorway be designed, assessed and planned immediately; and that a 'Type C' Corridor – that is a link between the M7 and the F3 near Kariong – be planned and the corridor reserved.

Referring to the first stage of the project linking the M2, the review concluded in 2007 that "there is a need for the link now".[39] The need to provide a freeway-grade link to the major northern road corridor is a critical and urgent priority for New South Wales, while it would be prudent to begin planning and corridor reservation for the long-term F3-M7 link in the short-term.

Estimated Project Cost F3-M2: $4.75 billion ($2008)

39 Pearlman, M. (2007) Review of the F3 to M7 Corridor Selection.

8.5 Passenger Rail Upgrades

The New South Wales Government should not lose focus on the need for major upgrades and additions to the existing urban rail network.

Such extensions include completion of the South West Rail Link, delivery of the North West Rail Link (NWRL) as the first component of a 'metro style' high-frequency network, continuing to the next stage of the Clearways Programme, separating freight from passenger rail across the network, untangling the CBD rail lines to provide greater capacity across the entire network, and undertaking major upgrades of high patronage CBD stations.

Infrastructure NSW must also consider the need for additional CBD line and station capacity and an additional Sydney Harbour Rail Crossing in the strategic infrastructure planning – additional CBD and Harbour crossing capacity will be required in the medium-term and the planning for the provision of that infrastructure must begin now.

Estimated Project Cost NWRL: $7.5 to $8.5 billion ($2011) (excluding rolling stock)

8.6 Freight Rail Upgrades

The growing freight task in New South Wales will place continued pressure on the freight and passenger rail networks.

In addition to investments in Sydney's planned intermodal network, and strategic planning to expand that network, *Infrastructure NSW* must also highlight the importance of expanded rail line capacity. Shared rail infrastructure – where freight and passenger trains share the same tracks – in the Sydney Basin means freight rail trains regularly spend 11 hours traversing the metropolitan network. Untangling the rail network to provide dedicated paths for freight trains should be a top priority. This should include significant upgrades to the North-South rail corridor.

Estimated Project Cost – Northern Sydney Freight Corridor Stage 1: $850 million ($2011)

Estimated Project Cost – Northern Sydney Freight Corridor Stage 2: $2.1 billion

Estimated Project Cost – Northern Sydney Freight Corridor Stage 3: $2.8 billion

8.7 Moorebank Intermodal

Sydney's freight task is set to surge over the coming two decades and Port Botany will be at the epicentre of that growth. Despite significant landside efficiency initiatives by Sydney Port Corporation, truck congestion at Port Botany is already at the upper limits of acceptability to the community and users who share the roads in the port precinct. Moving more containers by rail will form a central pillar of managing that logistics growth and intermodal terminals will be a key component of making rail work.

Moorebank Intermodal Terminal – including both the Commonwealth-owned site and the privately-owned Sydney Intermodal Terminal Alliance (SIMTA) – will be a critical node in Sydney's intermodal network. The Moorebank site, currently occupied by the Defence National Storage and Distribution Centre (DNSDC) and the School of Military Engineering (SME), is located adjacent to the Southern Sydney Freight Line near Liverpool on a key intersection of the M5 and M7 motorways. The Moorebank site is well located to benefit from existing infrastructure and a market where around 90 per cent of all containers moved by truck from Port Botany begin or end their journey in the Greater Sydney area.[40]

Infrastructure NSW must ensure that freight rail projects – including intermodals at Moorebank, Enfield and Eastern Creek – are prioritised, taking into account the wider network benefits of increased rail modal share from Port Botany.

Estimated Project Cost: $1 to $1.5 billion ($2011) – potentially up to 100 per cent of the Moorebank project could be funded by the private sector.

8.8 Pacific Highway Upgrades

Upgrades to the Pacific Highway are crucial to both local communities in northern New South Wales and the wider economy. The Pacific Highway is the main freight corridor between Sydney and Brisbane – its availability, adequacy and efficiency is critical to the inter-state freight task.

The Federal Government has committed to a 2016 deadline for completion of the upgrades and the NSW Government recently announced a bi-annual 'report card' on upgrade progress and the dedication of proceeds from the refinancing of Port Botany toward the upgrade.

By March 2012 around 52 per cent of the eventual 664 kilometre highway was dual carriageway. Upgrading the remaining 48 per cent should remain a major focus for New South Wales.

Estimated Project Cost: beyond current commitments approximately $7 billion ($2012) is required to complete the upgrade. The 2012-13 Commonwealth Budget committed $3.5 billion to the upgrade, contingent on a matched contribution from the NSW Government.

40 URS/Sydney Ports Corporation, Port Botany Expansion Environmental Impact Statement – Volume 1.

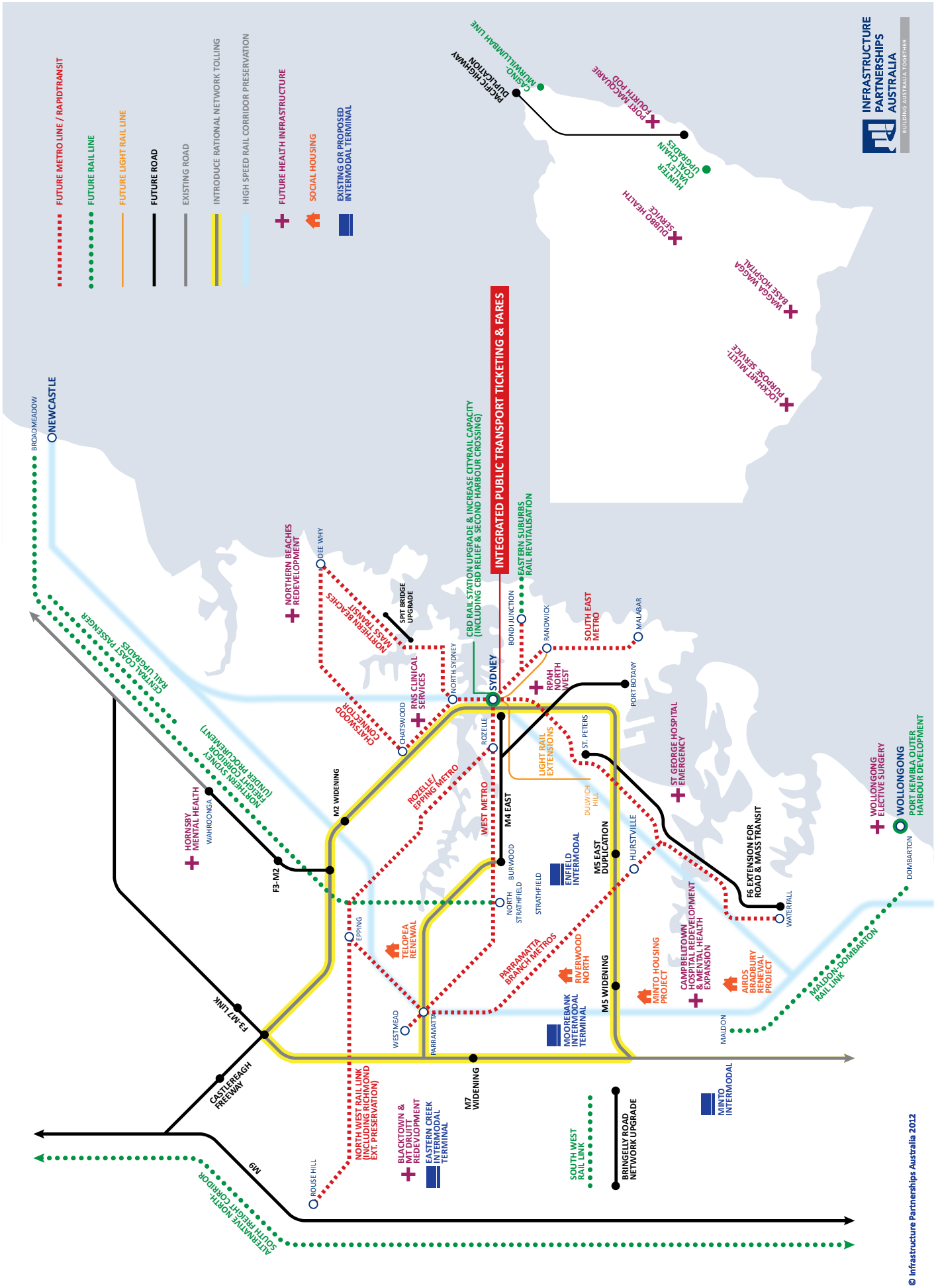
9 New South Wales Infrastructure Maps & Pipeline

Infrastructure NSW must identify and prioritise projects across all sectors. Many of those projects are well-known and well publicised; some are only just beginning to become apparent. *Infrastructure NSW* should assess, evaluate and prioritise all potential projects to construct a consistent, logical and deliverable infrastructure pipeline. A map outlining those competing priorities is included on the following page. A schematic of the Sydney greater metropolitan rail network, with planned and proposed additions to 2021, is also included.

▼ Figure 15

Infrastructure Prioritisation Map

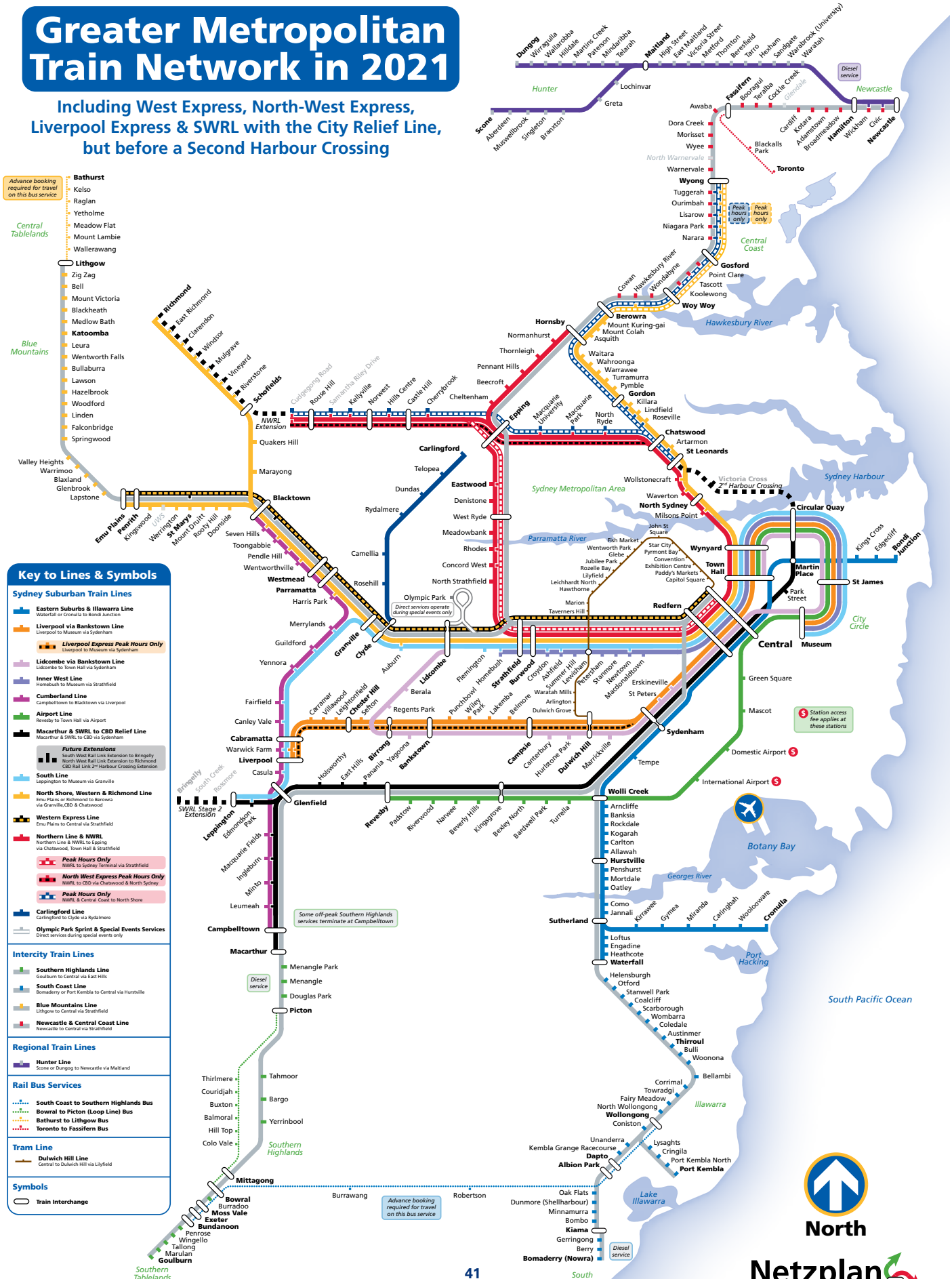
Source: Prepared for Infrastructure Partnerships Australia



▼ **Figure 16**

Greater Metropolitan Train Network in 2021

Source: Prepared for Infrastructure Partnerships Australia by The Tipping Point Institute, 2011



9.1 Infrastructure Prioritisation List

Infrastructure NSW should consider:

PROJECT	OUTLINE	STATUS
Integrated SmartCard Ticketing	Delivery of an integrated electronic smartcard ticketing system in Sydney.	Proposed – first trials expected in 2012
Public Transport Information and Priority System (PTIPS)	Following the roll out of PTIPS, implement a real-time customer information system for buses and ferries.	Proposed
West Metro (Metro Line 1)	Evaluation of the West Metro from Central to Westmead, potentially as a PPP.	Former Proposal
Rozelle-Epping Metro (Metro Line 1)	Extension of Metro Line 1 from Rozelle through Drummoyne, Gladesville and to Epping. This project could be planned and procured during construction of the West Metro.	Former Proposal
South East Metro (Metro Line 2)	Metro from the CBD to Malabar, via Oxford Street, Moore Park, Randwick Racecourse, UNSW and Maroubra.	Former Proposal
Dee Why Metro (Metro Line 2)	Continuation of the South East Metro under Sydney Harbour to North Sydney and then further to the Northern Beaches on a Military Road alignment, terminating at Dee Why.	Former Proposal
Parramatta Branch Metros	Consideration of Metro branch lines from Parramatta, commencing with a metro line to Epping to link with the North West Rail Link and the Epping Metro, and potentially others such as to Hurstville.	IPA Proposal
Chatswood Connector Metro	Investigate a Metro line connecting the northern tip of Metro Line 2 at Dee Why with Chatswood and through to North Sydney via Crows Nest.	IPA Proposal
Eastern Suburbs Rail Revitalisation	Consider either: extending the existing Eastern Suburbs line to Bondi, opening Woollahra railway station and investigating the long-term potential of converting the line to Metro; or providing a Metro branch line from Metro Line 2 to Bondi via a Paddington, Bondi Junction, Bondi Rd alignment.	IPA Proposal
Rolling Stock Renewal and Refurbishment Programme	A continual rolling programme to update, upgrade and renew rolling stock is required. Consideration should be given to 'off-the-shelf' modified rolling stock rather than bespoke train and carriage acquisitions.	IPA Proposal
Central Coast Rail Upgrades	Significantly upgrade the rail lines north of Sydney to improve passenger travel times to and from the central coast.	IPA Proposal
New Regional Trains	Replacement of all CountryLink XPT and Xplorer trains with a new, single class of train to improve service quality and reliability, and increase service frequency. Strong potential for PPP procurement with ongoing service and maintenance contract.	IPA Proposal
Casino to Murwillumbah Solution	Investigate public transport options for the Casino to Murwillumbah Line, particularly giving consideration to linking with Gold Coast Light Rail in the long term.	IPA Proposal

PROJECT	OUTLINE	STATUS
Regional Fast or Very Fast Trains	Preservation of corridors for an emerging fast and/or very fast train network from Sydney to the surrounding region such as Wollongong and Newcastle, with potential for expansion to neighbouring capital cities in the very long term as demand increases. Preservation of corridors, including subterranean corridors, for a future interstate High Speed Rail network and stations.	IPA Proposal
Sydney Light Rail Extensions	Plan and examine potential for extensions of Sydney's existing light rail network through Barangaroo to Circular Quay and west to Dulwich Hill. Light Rail Line from Sydney CBD to Kensington Via Moore Park, Randwick Racecourse and UNSW.	Barangaroo line under examination, Dulwich Hill extension under construction, Kensington extension under examination
M4 East	Assessment and prioritisation of the proposed extension to the M4 Motorway underground from Strathfield to the ANZAC Bridge, with a diversion to Sydney's port and airport precinct and to Victoria Road through Drummoyne. The M4 East is a critical project which should also be assessed by *Infrastructure NSW* alongside the Inner West Bypass proposal.	Proposed
F6 Extension for road and mass transit	Appraisal of the F6 freeway along the already reserved corridor from Waterfall to St Peters. Include an above-ground mass transit option, such as a Perth-style metro.	IPA Proposal
F3-M2	Evaluation of a road tunnel between the end of the F3 at Wahroonga to the M2 Motorway, on a Pennant Hills Road alignment.	Proposed
F3-M7 Link	Consider corridor preservation for an alternative northern route from the Sydney Orbital, to include a new crossing of the Hawkesbury River and linking with the F3 near Kariong.	Proposed
M5 Expansion	Assess options to widen the M5 motorway to provide for greater traffic capacity.	Underway
M5 East Duplication	Duplication of the M5 East to create additional capacity.	Proposed
M9	Reserve corridors for a Sydney far-western orbital motorway and freight link.	IPA Proposal
Spit Bridge Solution	Reconsider a solution for the Military Road and Spit Bridge corridor, in tandem with planning Metro Line 2, and potentially including a high bridge over the Spit.	IPA Proposal
Castlereagh Freeway	Investigate medium-term potential for a motorway-grade connection between the North West corner of the Sydney Orbital and the North West Growth Centre, and potentially linking to the proposed M9 or new North-South Freight Corridor.	IPA proposal
M7 Widening	Consider whether the M7 Motorway may also require capacity enhancements over the length of the State Infrastructure Strategy (WestLink M7 was designed to be expanded to three lanes as demand increases).	Proposed
Maldon – Dombarton Rail Link	*Infrastructure NSW* should work with the Federal Government to finalise the priority, construction timetable and cost estimates following the recent feasibility study findings.	Proposed

PROJECT	OUTLINE	STATUS
Bringelly Road Network Upgrade	Assess the need to upgrade the roads that link precincts within the South West Growth Centre.	IPA Proposal
Separating Passenger and Freight Rail	Consider the merits of a staged programme to separate a far greater proportion of passenger and freight rail services. Freight rail currently suffers from delays due to passenger service priority, and a lack of capacity on existing rail lines.	IPA Proposal
Hunter Valley Coal Chain Upgrades	Work with the private sector to prioritise increased rail infrastructure capacity to meet the growing coal task between the Hunter Valley and Gunnedah Basin and the Port of Newcastle. *Infrastructure NSW* should work with the private sector to provide coordinated capacity upgrades that limit costs to the taxpayer.	Proposed
Pacific Highway Duplication	Evaluate an accelerated programme to upgrade the Pacific Highway to full dual-carriageway from Hexham to the QLD border.	Ongoing construction
Northern Sydney Freight Corridor	Prioritise separation of freight and suburban passenger services through network improvements such as grade separation, amplification and bi-directional passing loops at different points in the rail corridor between North Strathfield and Broadmeadow.	Under Procurement and Proposed
Alternative North-South Freight Corridor	Consider the potential of a new North-South freight corridor, with road and/or rail, running on a Western alignment, potentially in conjunction with the proposed M9.	IPA Proposal
Moorebank Intermodal Terminal	Prioritise development of an intermodal terminal at Moorebank, scheduled to meet Port Botany container freight growth forecasts.	Planning Underway
Eastern Creek Intermodal Terminal	As part of a broader Intermodal Terminal Strategy, assess the need for Eastern Creek to accommodate future capacity requirements for urban freight movement to and from Port Botany.	Proposed
Port Kembla Outer Harbour Development	Evaluate and prioritise reclamation of 52 hectares of land at the Port Kembla site allowing for the construction of seven new berths. Consider the use of spoil from the North West Rail Link tunnelling for reclamation.	Planning Underway
South West Rail Link	Assess the need for extension of the 13km line, including to Bringelly, in line with demand and housing growth.	Under construction
Increasing CityRail Capacity within the CBD and CBD Relief Line	Work with TfNSW to assess options to 'untangle' the CityRail network between Redfern/Eveleigh and Wynyard utilising the CBD stub to increase network capacity across the entire CityRail system. *Infrastructure NSW* should also consider demand for a CBD Relief Line and additional rail capacity across Sydney Harbour.	IPA Proposal
CBD Rail Station Upgrade	Assess options to refurbish and renew Sydney's high-throughput CBD rail stations to provide for better platform access, greater vertical movements, ease station crowding, improve train paths, reduce distances between platforms and stimulate urban renewal. Potential for PPP-style contracts as outlined in IPA's submission to the New South Wales Parliamentary Inquiry into rail corridor utilisation.	IPA Proposal

PROJECT	OUTLINE	STATUS
Healthcare Facilities Audit	*Infrastructure NSW* should consider recommending an audit to evaluate the condition of all hospitals and healthcare facilities in NSW. The Healthcare Facilities Audit should inform a programme of renewal and replacement across the public health system; ensuring assets are retired where appropriate and resources are aligned to existing and projected demand.	IPA Proposal
Wollongong Elective Surgery Unit (Illawarra and Shoalhaven – Local Area Health District)	Consider the need for an elective surgery unit at Wollongong Hospital – including new operating theatres, inpatient beds and new surgical outpatient clinics – would substantially cut waiting list times.	Planning
Lockhart Multi-Purpose Service (MPS) (Murrumbidgee – Local Area Health District)	Consider pooling of funding to allow for the development of an integrated health and aged care service. This service model, designed for rural and remote communities, is based on increased access to services, greater flexibility and increased integration.	Planning
Wagga Wagga Base Hospital Redevelopment (Murrumbidgee)	Redevelopment will provide an expanded surgery and procedural capacity of six operating theatres and two endoscopy rooms, angiography rooms and perioperative areas, a new and larger area for the emergency medical unit and emergency department and new and upgraded inpatient areas.	Planning/early site works
Port Macquarie Fourth Pod (Mid North Coast)	Assess the expansion of the fourth pod at Port Macquarie Base Hospital – including a cardiac catheterisation laboratory.	Planning
Hornsby Hospital Acute Mental Health Unit and Child Adolescent Mental Health Unit (Northern Sydney)	Upgrading Hornsby Hospital's existing mental health facilities and building a new mental health unit to increase both adult, adolescent and child services.	Contracts Awarded/ Early Works Underway
Northern Beaches Redevelopment – Stage 1 (Northern Sydney)	Evaluate the new Level 5 metropolitan hospital at Frenchs Forest for patients in Sydney's Northern Beaches to access high quality health services and facilities locally.	Planning
Royal North Shore Clinical Services Building (Northern Sydney)	To provide purpose-built women's and children's health facilities, a severe burn injury unit and mental health facilities.	Planning
St George Hospital Emergency Department (South Eastern Sydney)	Appraisal of need for an upgraded emergency department at St George Hospital to keep up with the growing demand for emergency services in the area.	Contract Awarded
RPAH North West Precinct (Sydney)	The redevelopment of the north west precinct of Royal Prince Alfred Hospital Campus, Camperdown will see the construction of two buildings and a 62 space basement car park. The upgraded facilities would accommodate a mental health unit, renal dialysis unit and allied health facilities	Planning
Campbelltown Mental Health Expansion (South Western Sydney)	The redevelopment and expansion of the Campbelltown Mental Health Service to increase capacity as is necessary due to the area's population growth.	Planning
Campbelltown Hospital Redevelopment (South Western Sydney)	The redevelopment of Campbelltown Hospital to expand existing inpatient services by 90 new beds and 30 shelled beds, providing acute services and enhanced specialist care.	Contract Awarded

PROJECT	OUTLINE	STATUS
Blacktown and Mount Druitt Redevelopment/ Expansion (Western Sydney)	Blacktown and Mount Druitt are two of the State's busiest hospitals with emergency departments treating more than 65,000 people in 2010. The redevelopment and expansion would see an upgraded emergency department, a new cancer care centre and up to 120 additional beds.	Planning
Dubbo Health Service – Stage 1 (Western)	The Dubbo Base Hospital redevelopment will combine new facilities with upgraded existing facilities to expand surgical capacity, provide additional inpatient beds, new ward areas for paediatric and maternity services, and new and expanded space for a mbulatory care. The Emergency Medical Unit will also be reconfigured and medical specialist clinics will be consolidated with additional consulting space provided.	Planning
Airds Bradbury Social Housing Renewal Project	In November 2011, the NSW Government invited Expressions of Interest from the private sector to enter into a Public Private Partnership (PPP) to deliver the Airds Bradbury Renewal Project near Campbelltown. *Infrastructure NSW* will need to work with project agencies to ensure delivery of supporting infrastructure such as healthcare, transport and major utility connection.	Planned
Riverwood North Urban Renewal Project	The Riverwood North Urban Renewal Project plans to create a community with up to 600 new homes – 150 social housing units for seniors, and up to 450 privately owned, affordable homes. *Infrastructure NSW* will need to work with project agencies to ensure delivery of supporting infrastructure such as healthcare, transport and major utility connection.	Planned
Telopea Urban Renewal Project	The renewal of the Housing NSW Telopea Precinct will see an increase in the number of dwellings from 530 to approximately 1900 including development of approximately 1,400 private residences to be delivered by the private sector. The number of social housing dwellings will remain the same, however the concentration of social housing will reduce from 100 per cent to 30 per cent. *Infrastructure NSW* will need to work with project agencies to ensure delivery of supporting infrastructure such as healthcare, transport and major utility connection.	Planned
Minto Renewal Project	The Minto Renewal Project involves the staged redevelopment of approximately 1,000 properties in the Minto public housing area in south west Sydney. Housing NSW, Campbelltown City Council as key landowners and Landcom as the development manager have entered into an agreement for the management of the project. *Infrastructure NSW* will need to work with project agencies to ensure delivery of supporting infrastructure such as healthcare, transport and major utility connection.	Planned
Lithgow Correctional Centre	Lithgow Correctional Centre is a maximum security prison housing male prisoners. The Centre is located seven kilometres west of Lithgow. *Infrastructure NSW* should evaluate options for greater private sector involvement in the delivery of services at the prison.	Proposed

PROJECT	OUTLINE	STATUS
Cessnock Correctional Centre	Cessnock Correctional Centre is a minimum and maximum security prison for males. It is located in the Hunter Valley, and is the Newcastle/Hunter region's reception prison. *Infrastructure NSW* should evaluate options for greater private sector involvement in the delivery of services at the prison.	Proposed
Grafton Correctional Centre	Grafton Correctional Centre is a medium and minimum security prison for both males and females located 650 kilometres north of Sydney, in the centre of Grafton. The Correctional Centre houses sentenced offenders and serves as a reception prison for northern New South Wales. *Infrastructure NSW* should evaluate options for greater private sector involvement in the delivery of services at the prison.	Proposed

10 Annexures

Annexure 1: *Driving reform on Sydney's roads* can be accessed here –
http://www.infrastructure.org.au/Content/DrivingreformonSydneysroads.aspx

Annexure 2: *Integrated Infrastructure Planning – A Way Forward* can be accessed here –
http://www.infrastructure.org.au/Content/airportbotany.aspx

Annexure 3: *Meeting the 2050 Freight Challenge* can be accessed here –
http://www.infrastructure.org.au/Content/Meetingthe2050FreightChallenge.aspx

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