

Infrastructure NSW

# State Infrastructure Strategy Update 2014

Recommendations to the NSW Government  
November 2014

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# Chairman's foreword



It is with great pleasure that I provide the State Infrastructure Strategy Update to the NSW Government on behalf of Infrastructure NSW, in accordance with the Infrastructure NSW Act 2011.

Dear Premier,

On behalf of the Board of Infrastructure NSW, I am pleased to submit this update to the 2012 State Infrastructure Strategy.

This Report responds to your request that Infrastructure NSW assist the Government to identify the highest value, most needed and most productive new infrastructure projects that could be delivered if substantial additional funding becomes available from the *Rebuilding NSW* initiative.

In the two years since the 2012 State Infrastructure Strategy, many important projects have moved from concept to business case, from business case to planning approval and from planning to construction. *Rebuilding NSW* provides the opportunity for the Government to advance funding for many more high value projects and deliver benefits to the citizens and businesses of the State much earlier than would otherwise be possible.

The priority projects recommended in this Report must now be subject to the strengthened disciplines that apply to the State's major infrastructure investments to ensure best value for money for taxpayers. With clear long-term project commitments, however, several of the

recommended projects may now attract private sector capital which would, where cost-effective, leverage the funds available to Government and further accelerate delivery of benefits for the people of NSW.

The Infrastructure NSW Board believes that this updated Strategy presents the Government with an exciting set of opportunities to improve, and in many ways transform, the productivity and efficiency and the liveability of Greater Sydney and of communities across NSW.

We commend this Report to you.

Yours sincerely



Graham Bradley AM

**Chairman  
Infrastructure NSW**

# Executive summary

**In June 2014, the Premier announced the *Rebuilding NSW* initiative, a \$20 billion program of infrastructure investment to be funded from the long-term lease of 49 per cent of the State's electricity network assets. This Report is Infrastructure NSW's independent advice to Government on the next round of critical infrastructure priorities for NSW.**

The one-off capital injection provided by *Rebuilding NSW* represents a significant opportunity to accelerate a program of infrastructure investment and lock in long-term and higher rates of economic growth and productivity than would otherwise be achievable.

The funds provided through *Rebuilding NSW* must be invested wisely, and with a full understanding of where, when and how maximum value can be extracted from their allocation.

In preparing this Report, Infrastructure NSW has found that there is considerable capacity to deliver elements of the Government's infrastructure program sooner – in transport, health, education, water, and cultural, sporting and environmental infrastructure – provided there is an equal focus on fiscal discipline and achieving value for money.

This Report identifies projects and reforms which, given funding certainty in the near term, could be delivered earlier, to accelerate growth and deliver benefits to the community sooner. It has been prepared at a time of rejuvenation for the State economy. Growth in State Final Demand in NSW in 2013-14 was more than twice as strong as any other State and almost six times the national average.<sup>1</sup> Close to 200,000 jobs have been added in the State's economy over the past five years.<sup>2</sup> And the State's housing sector is expanding, with dwelling starts in 2013-14 around 36 per cent – or 12,500 dwellings a year – higher than in 2011-12.<sup>3</sup>

Infrastructure NSW delivered its first State Infrastructure Strategy *First Things First*, in 2012. Two years on, many of its key recommendations are being progressed. With *Rebuilding NSW*, the State has the opportunity to go further and faster, equipping itself with the infrastructure it needs to remain vibrant, liveable, productive and globally competitive.

1. Australian Bureau of Statistics (2014a), Australian National Accounts: National Income, Expenditure and Product, June Quarter 2014, Cat. No. 5206.0
2. Australian Bureau of Statistics (2014b), Labour Force, Australia, October 2014, Cat. No. 6202.0
3. Australian Bureau of Statistics (2014c), Building Activity, Australia, June Quarter 2014, Cat. No. 8752.0

Sydney's roads are some of the most congested in Australia. Congestion imposes costs on the economy and the community through longer commutes, higher operational costs and restricted access. Currently, the indirect costs of congestion represent 8 to 12 per cent of total transport costs incurred by Sydney businesses. Sydney's congestion costs are currently around \$5 billion per year – equivalent to annual losses of \$1,100 per Sydneysider – and are forecast to increase to around \$8 billion per year by 2020. Without corrective action, congestion will worsen – and the costs to business and the community will escalate – as the city's population grows.

Infrastructure NSW commissioned Deloitte Access Economics to model the economic benefits of the *Rebuilding NSW* initiative, including the accelerated infrastructure investments recommended in this Report. The model found that effective implementation of these recommendations could increase Gross State Product by \$30.9 billion by 2035, a 3.6 per cent increase, and add about 122,000 more jobs.

The investments and reforms that Infrastructure NSW recommends are anchored to three critical priorities: a competitive, global Sydney, supporting population and economic growth in Greater Sydney, and ensuring a competitive and connected regional economy. The total claim on *Rebuilding NSW* of these proposed investments is \$18.9 billion over 10 years. A full list of funding recommendations is set out in Chapter 12.

The funding recommendations in this Report are in addition to the forecast State infrastructure expenditure of \$61.5 billion over the four years to 2017/18.

## A competitive Global City

Sydney is Australia's global city, generating around one-fifth of national GDP. The city has a competitive advantage in higher value-added industries and services, which are concentrated in the Global Economic Corridor.

From 2011 to 2031 Sydney will grow by another 1.6 million people, with more than 27.5 million journeys occurring every weekday, as well as around 1.6 million freight and commercial trips.<sup>4</sup> Against this backdrop, Sydney's transport congestion costs are forecast to increase from \$5.6 billion a year to around \$8 billion a year by 2020.<sup>5</sup> It is also estimated that diverted freight travel will cost NSW businesses almost \$20 billion over the next 20 years and require an additional 900,000 driver hours.<sup>6</sup>

This Report supports Sydney's long-term growth by improving public transport connectivity to the city's major employment centres, lifting urban productivity by reducing congestion across the transport network and supporting transit-oriented urban renewal in inner city areas to improve accessibility and land use productivity.

Infrastructure NSW recommends that the following priorities are progressed:

- **A transformative upgrade to Sydney's passenger rail network:** \$8 billion to deliver a step change in the capacity and reliability of the city's train system, including upgrades to lines in the city's north

4. Transfigures, March 2014, Travel forecasts 2011-2014 and Transfigures, July 2010, Freight movements in Sydney

5. Deloitte Access Economics, November 2014, Economic Impact of the SIS including Rebuilding NSW

6. Transport for NSW 2014, Fixing Country Roads: Expression of Interest Guidelines

and west, and *Sydney Rapid Transit* extending from Chatswood to the CBD via a second Harbour rail crossing and out to Bankstown.

- **An expedited program of major motorway projects:** development and delivery of the next stages of the Sydney's economically critical motorway network, including Northern and Southern Extensions of WestConnex and the Western Harbour Tunnel, providing a third crossing of Sydney Harbour. Infrastructure NSW recommends that these motorways be toll roads with significant user funding.
- **Congestion mitigation measures to optimise existing road infrastructure:** \$1 billion for upgrades to the existing road network, including works to relieve congestion at pinch points across the city and extend clearways, with improvements to real-time traffic and congestion management and the implementation of the capacity-enhancing Smart Motorways system on key parts of the system.

## Supporting population and economic growth in Greater Sydney, including Parramatta

Western Sydney is Australia's third largest economy, and its major centre, Parramatta, is potentially Sydney's second CBD. The region is experiencing more rapid population growth than the rest of Sydney. By 2031, one million more residents will live west of Homebush.<sup>7</sup>

7. <http://www.planning.nsw.gov.au/en-au/deliveringhomes/population-and-housing>, last updated 20 August 2014



Growth will place increasing pressure on Western Sydney's infrastructure, which is less well served by Sydney's historically radial public transport network, dispersed settlement patterns and poor north-south integration between precincts. These challenges require many residents to travel across town to access high-skilled jobs and are a deterrent to commercial development in Western Sydney centres.

This Report focuses on improving connections to Parramatta to enhance its attractiveness as an employment hub and commercial centre, and to support longer term planning for new economic activity across Western Sydney, specifically around Badgerys Creek, the western employment precinct and the region's cultural and sport precincts. Infrastructure NSW also recommends new approaches to investing in education and health infrastructure to support population growth.

Infrastructure NSW's recommendations to accelerate projects for Western Sydney include:

- **Support Parramatta's economic potential:** A reservation of \$600 million, in addition to \$400 million reserved in the 2014 Budget, to improve public transport provision between Parramatta and other centres and residential areas – to be supported by a long-term transport improvement plan by the Government.
- **A major cultural precinct in Parramatta:** As part of the Parramatta North Urban Renewal Project, a cultural precinct should be developed around the Old King's School site, potentially including a relocated Powerhouse Museum.

- **Education and health infrastructure that supports growth:** A combined reservation of \$1.4 billion for a new Schools Growth Program and to progress business cases for the Hospitals Growth Program for hospital investments such as the Campbelltown Hospital and a new health facility at Rouse Hill. These investments should be matched by improved delivery and expenditure models that will manage growing demand by 'bending the cost curve', support urban densification and improve value for money through innovative partnerships with the private sector.
- **A major review of sporting infrastructure:** Planning for a new or upgraded rectangular sports stadium in the Central Western Sydney area.

Infrastructure NSW also recommends that funding sources be identified to deliver flood mitigation and evacuation works for the Hawkesbury-Nepean Valley in anticipation of the Task Force report to Government in mid-2015.

## Ensuring a competitive and connected regional economy

Regional freight supports production worth more than \$80 billion a year to the NSW economy, with the Hunter and Illawarra alone producing almost a third of the State's GSP.

Around 100,000 jobs rely on the agricultural and mining sectors of NSW, which in turn rely on critical water and freight infrastructure to remain productive and competitive.

Provisional funding of \$6 billion from *Rebuilding NSW* has been allocated to productive regional infrastructure, focusing on efficient road and rail connections, secure water supplies for regional industries and communities, and investment in health and education infrastructure to support the regional workforce and meet the needs of regional communities.

Infrastructure NSW recommends reservations from the *Rebuilding NSW* initiative for the following regional priorities:

- **Efficient freight transport to ports and markets:** A combined reservation of at least \$3.1 billion to improve existing road and rail networks, including freight productivity improvements along four critical corridors (the Newell, Golden, New England and Great Western Highways) and to extend three major sub-programs: Bridges for the Bush, Fixing Country Roads and Fixing Country Rail.
- **Increased connectivity for regional centres:** \$1 billion to improve the road network to meet the demands of regional growth areas, including the Illawarra, Lower Hunter, North Coast and Central Coast.
- **Water supply and water security:** A \$1 billion program of investment based on economic need for enhanced water security, with priority investment for the Gwydir, Macquarie and Lachlan inland river catchments and the coastal catchment of the Upper Hunter, and 71 projects to bring regional towns up to water quality and environmental standards. The regional towns of Broken Hill and Cobar are given high priority for water security upgrades. These

investments will be supported by a new catchment needs assessment framework, best practice planning and price recovery, and consideration of options to take advantage of unutilised flows and underutilised infrastructure.

- **Equip regional populations with modern schools, training and health infrastructure:** \$300 million for a new 10 year Regional Schools Renewal Program to modernise and upgrade classrooms and facilities for future-focused learning, and \$300 million for the delivery of a multipurpose health services strategy for rural and regional NSW.
- **Develop regional cultural and tourism infrastructure:** \$300 million to invest in an Environment and Tourism Program to support the regional visitor economy and allocations from a State-wide \$600 million cultural infrastructure strategy to develop regional creative hubs and cultural infrastructure.

## The way forward

The investments proposed in this Report are ambitious. Their breadth and pace of delivery must be supported by a commitment across Government to continuously pursue greater value for taxpayers, by improving planning and delivery capacity, managing growing demand and operational costs, working with the private sector to maximise value for money outcomes, and managing existing assets to make the most of past investments.

NSW's track record has demonstrated that selecting the *right* infrastructure projects and planning, delivering and managing them well, is critically important.

Infrastructure NSW has identified seven major opportunities to improve the way NSW plans, delivers and uses infrastructure across sectors:

- **Long-term infrastructure planning:** reducing the long-term costs of infrastructure provision by identifying and reserving future corridors, and ensuring agencies have the capability and resources to plan and prioritise effectively.
- **Optimising asset utilisation:** using relatively low cost interventions to optimise the performance of existing infrastructure, unlocking network-wide benefits in the process.
- **Harnessing technology:** using information and communications technologies (or 'Smart ICT') to revolutionise how infrastructure should be designed, constructed and operated.
- **Reforming project governance:** improving the management of major capital projects in areas such as risk assessment, budget setting and project management across the project lifecycle.
- **Identifying new approaches to funding and procurement:** developing value capture mechanisms, additional commercial revenue streams, infrastructure pricing strategies and asset recycling as ways to bridge the funding gap between the infrastructure we have and the infrastructure we want.

- **Delivering 'whole of government' outcomes:** coordinating place-based planning to support population growth and housing acceleration in urban renewal areas.
- **Working with the Commonwealth Government:** harnessing cooperation between governments on infrastructure projects to improve the quality of project planning and delivery, and improve affordability for national-scale projects.

All the potential investments Infrastructure NSW recommends in this Report have demonstrated their strategic merit and should now be developed further by agencies. Business cases should be developed over the coming 18 months, to enable final investment decisions to be taken by Government in a timely fashion, if and when the proceeds from the electricity network transaction are realised.

Adopting the investments and reforms recommended in this Report will ensure that *Rebuilding NSW* initiatives are allocated responsibly, targeted carefully, and delivered where they will generate the greatest benefits.

The opportunity provided by *Rebuilding NSW* is an important one. With the benefit of considered analysis – and building on a strong platform of current infrastructure investment – Infrastructure NSW considers that the leasing of 49 per cent of the State's electricity networks will translate into substantial economic and social benefits that extend across the State, and the delivery of vital public infrastructure that will serve NSW for many decades to come.

## Global Sydney

## Greater Sydney

## Regional NSW

<b>Facts</b>	<ul style="list-style-type: none"> <li>• 39% of the economy and 16% of the population</li> <li>• Sydney is Australia's global city, generating around one-fifth of national GDP</li> <li>• Global Sydney is an international leader in high value, knowledge-based service industries</li> <li>• Sydney Airport and Port Botany are NSW's principal international gateways</li> </ul>	<ul style="list-style-type: none"> <li>• 32% of the economy and 44% of the population</li> <li>• Western Sydney is now Australia's third largest economy</li> <li>• Parramatta is potentially Sydney's second CBD.</li> <li>• Western Sydney is growing more rapidly; by 2031 one million more people will live west of Homebush</li> </ul>	<ul style="list-style-type: none"> <li>• 29% of the economy and 40% of the population</li> <li>• Australia's largest and most diverse regional economy</li> <li>• Regional freight supports production worth \$80 billion per annum</li> <li>• Internationally significant primary production: coal, grain, livestock, viticulture</li> </ul>
<b>Conclusions</b>	<p><b>A competitive, global Sydney</b></p> <ul style="list-style-type: none"> <li>• Global Sydney must out-compete cities in the Asia-Pacific region for liveability and business attractiveness</li> <li>• Should maintain Sydney CBD as a world renowned cultural destination</li> <li>• Sydney's transport congestion costs are forecast to increase to around \$8 billion a year by 2020</li> <li>• Accelerated investment in passenger rail capacity and roads is essential to meet the congestion and transport task</li> </ul>	<p><b>Supporting population and economic growth in Greater Sydney, including Parramatta</b></p> <ul style="list-style-type: none"> <li>• Parramatta and other centres require investment to realise their potential</li> <li>• Transport investment is required to support urban regeneration, housing acceleration and connect people to jobs</li> <li>• Investment in education and health infrastructure to support population growth and ageing</li> <li>• Develop a major cultural precinct in Parramatta and review sports stadia</li> </ul>	<p><b>Ensuring a competitive and connected regional economy</b></p> <ul style="list-style-type: none"> <li>• Regional producers require efficient and reliable access to markets</li> <li>• Improvements to water security and quality are required</li> <li>• Regions adjacent to Sydney will benefit from better transport links</li> <li>• Investment required for multi-purpose Health facilities and to modernise schools</li> <li>• Develop regional cultural and tourism facilities</li> </ul>

### Infrastructure NSW 2014 SIS Update: key recommendations for development of final business cases

<p><b>Funding from 2016 brings projects forward over next 10 years. \$18.9 billion from the Rebuilding NSW initiative</b></p>	<ul style="list-style-type: none"> <li>• \$8 billion to deliver a step-change in capacity and reliability of Sydney's rail system:             <ul style="list-style-type: none"> <li>– Western Sydney Rail Upgrade Program (SRF2) \$1 billion</li> <li>– Sydney Rapid Transit \$7 billion</li> </ul> </li> <li>• \$6.3 billion to expedite the critical motorways as toll roads:             <ul style="list-style-type: none"> <li>– WestConnex Nthn &amp; Sthn extensions \$1.8 billion</li> <li>– Western Harbour Tunnel \$4.5 billion</li> </ul> <p>Note: \$6.3 billion paid for as tollroads.</p> </li> <li>• \$1 billion to reduce congestion in the road network:             <ul style="list-style-type: none"> <li>– Urban Pinch Points Program \$300 million</li> <li>– Expanded Clearways Program \$100 million</li> <li>– Smart Motorways: \$400 million</li> <li>– Transport management systems \$200 million</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• \$600 million for the Parramatta CBD Public Transport Improvement Program</li> <li>• \$300 Bus Rapid Transit and Bus Priority Program</li> <li>• \$300 million Pinch Point Upgrade Program Sydney – Illawarra</li> <li>• \$100 million Corridor Reservation Program</li> <li>• \$1.4 billion for Education and Health facilities in Greater Sydney:             <ul style="list-style-type: none"> <li>– Schools Growth Program \$700 million</li> <li>– Hospitals Growth Program \$600 million</li> <li>– Care Co-location Program \$100 million</li> </ul> </li> <li>• \$1.2 billion for cultural and sporting investment for Global and Greater Sydney:             <ul style="list-style-type: none"> <li>– Cultural Infrastructure Program \$600 million</li> <li>– Sports Stadia Infrastructure Program \$600 million</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• \$3.1 billion for efficient freight transport to ports and markets:             <ul style="list-style-type: none"> <li>– Freight Road Corridor Program \$2 billion</li> <li>– Bridges for the Bush \$200 million</li> <li>– Fixing Country Roads \$500 million</li> <li>– Fixing Country Rail \$400 million</li> </ul> </li> <li>• \$1 billion Regional Growth Roads Program</li> <li>• \$1 billion Regional Water Security and Supply Fund</li> <li>• \$300 million Regional Schools Renewal Program</li> <li>• \$300 million Regional Multi-Purpose Health Facilities Program</li> <li>• \$300 million Regional Environment and Tourism Program</li> </ul>
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**Rebuilding NSW**

**\$12.9 billion for Global and Greater Sydney plus \$6.3 billion in toll roads**

**\$6 billion for Regional NSW**