



Australian Government

Nation Building

RAIL, ROAD, EDUCATION & RESEARCH AND BUSINESS



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Nation Building

DECEMBER 2008

STATEMENT BY

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PRIME MINISTER

AND

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DEPUTY PRIME MINISTER

MINISTER FOR EDUCATION, EMPLOYMENT, WORKPLACE
RELATIONS AND SOCIAL INCLUSION

AND

THE HONOURABLE WAYNE SWAN MP

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AND

THE HONOURABLE ANTHONY ALBANESE MP

MINISTER FOR INFRASTRUCTURE, TRANSPORT, REGIONAL
DEVELOPMENT AND LOCAL GOVERNMENT

Foreword

The global economy is going through the most difficult period in living memory. In just the past few months, trillions of dollars have been wiped from global share markets; the United States, Europe and Japan have slipped into recession; and almost every developed country has seen massive job losses.

Extraordinary times require extraordinary action. In the past when governments have failed to take early action, recessions have deepened as confidence falls and bad news feeds on itself. A failure to act early and decisively today would not only be an economic failure, it would be a failure of leadership and a failure to learn the lessons of the past.

The Australian Government will continue to do whatever is necessary to help protect Australian households and businesses from the worst effects of this global crisis.

The Nation Building package complements measures taken by the Government over the past several months to help support growth and protect Australian jobs. The Government has invested more than \$32 billion in a targeted and focused way over just three months to help create Australian jobs.

The Nation Building package is a further step to strengthen the Australian economy. We are investing \$4.7 billion to strengthen the economy and support jobs. These national infrastructure projects and the assistance to business are expected to boost the level of GDP and employment. The expected bring-forward of capital spending as a result of the investment allowance means that the largest economic effects are in 2009–10, when GDP might be expected to be higher by $\frac{1}{4}$ to a $\frac{1}{2}$ of a percentage point, helping to create up to 32,000 jobs.

This Nation Building package is about Australia's future. The global economy will, in time, emerge from this crisis. It will not happen quickly, but when the crisis is over the world will move forward into a new global economic reality. Economists predict that the global economy will double in size over the next two decades. China and other emerging economies in Asia will become a larger and more powerful force in international commerce. Billions of workers and consumers in these emerging economies will become full participants in the global economy.

Even in the midst of the current crisis, Australia must look to the future. We must take action now to ensure that we not only get through our current challenges, but that we emerge from them strong, reformed and equipped for the future. We must be positioned to compete in the economy of the 21st century – to create good jobs for skilled workers in competitive industries.

The Nation Building package invests in our people and their talents by building our nation's educational infrastructure. Our educational institutions are the bedrock of our national competitiveness, driving home-grown innovation in Australian industries.

That is also why this package brings forward our nation building agenda. By building and repairing our roads, rail and transport infrastructure we are boosting the competitiveness of our economy and investing in the drivers of productivity growth across the economy. The Australian Government is committed to building the infrastructure Australia needs for the 21st century. The measures announced in the Nation Building package are just one stage of our long term nation building agenda.

In a time of global recession, Australia's businesses are under pressure. Businesses – large and small – make an enormous contribution to our economy and they must be supported through this crisis so that they can move forward with confidence, retain and create jobs, and invest for the future.

That is why the Nation Building package delivers two new measures to support Australian business: a reduction in tax instalments to give a short term boost to the cash flows of Australian small businesses; and a temporary investment allowance to encourage all businesses to bring forward capital investment projects.

Together these measures in the Nation Building package are critical to strengthen our economy, protect jobs today, and prepare Australia for the challenges of the future.

Kevin Rudd

Prime Minister

Julia Gillard

Deputy Prime Minister

Minister for Education,
Employment,
Workplace Relations
and Social Inclusion

Wayne Swan

Treasurer

Anthony Albanese

Minister for
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Transport, Regional
Development and
Local Government

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CHAPTER 1:
Executive Summary





1. EXECUTIVE SUMMARY

The Australian Government is acting decisively to help strengthen the Australian economy and protect jobs from the impact of the most severe global financial crisis in three quarters of a century.

In the past few months, the global financial crisis, which began in the United States housing market, has deepened and spread further around the world.

Continued disruptions in global financial markets have contributed to falling investor confidence, caused significant losses on global sharemarkets, and necessitated further government bail outs of troubled financial institutions.

As the financial crisis continues to spill over into the real economy, it has pushed more economies into recession, including the US, Japan, Italy and Germany. The global recession is resulting in higher unemployment, with corporate layoffs being announced on a daily basis in developed economies and the OECD predicting unemployment to rise by 8 million across advanced economies.

As the world's 14th largest economy Australia is exposed to events in international financial markets. While the fundamentals of our economy are strong, we are not immune from the financial crisis or its effects on growth and jobs.

That is why the Australian Government has acted early and decisively throughout the crisis to help soothe financial markets, to build confidence among investors and consumers, and protect Australia's households and businesses from the worst effects of the global economic turmoil.

In October the Government commenced an Economic Security Strategy to strengthen the Australian economy. Each stage of the Economic Security Strategy will help create jobs and stimulate the economy.

The first phase of the Economic Security Strategy delivered a \$10.4 billion package targeted towards low and middle income families, pensioners and carers, and first home buyers. The package amounts to a stimulus of around 1 per cent of GDP and will create up to 75,000 additional jobs across the economy.

As a second phase, the Australian Government committed to a \$6.2 billion New Car Plan for a Green Future to help support the 200,000 Australian jobs that rely on the automotive industry. The Plan will help Australian car manufacturers produce low-emission, fuel efficient vehicles while creating the high-skilled, well-paid jobs of the future. The Government has also worked with the private sector to establish a financing vehicle to support car dealerships suffering the effects of the credit crunch. Together these measures will help to ensure the long term viability of the Australian automotive industry.

Third, in November the Australian Government launched a \$300 million Regional and Local Community Infrastructure Program. This will help boost local economic development by building local community infrastructure in all of Australia's 565 local council areas and supporting jobs in communities around the country.

Fourth, the Australian Government through COAG committed to spending \$15.1 billion in a national reform package focused primarily on improving schools and hospitals, and training more quality teachers, nurses and doctors. This investment by the Government will deliver a significant stimulus to the Australian economy and create tens of thousands of new jobs.

Nation Building

The Australian Government is building on its Economic Security Strategy with a new Nation Building package.

The Nation Building package builds on these initiatives with an additional \$4.7 billion to strengthen the economy and create jobs.

This additional funding will build on the Australian Government's existing plans for investment in critical rail, road and education infrastructure to provide a total of \$7.4 billion across the 46 projects detailed in this statement.

The Nation Building package includes a \$1.2 billion injection of equity into the Australian Rail Track Corporation to finance investment in 17 projects which make up an ambitious program of track upgrades and construction that will significantly improve Australia's rail network.

The Government will bring forward the commencement of construction of 14 national road projects already announced under the Building Australia Program (formerly AusLink 2). The total value of these projects is \$4.5 billion. Accelerating project starts will inject an additional \$711 million into the economy over 2008–09 and 2009–10, balanced by reductions in the program in later years.

The bring-forward of the construction of these roads means that work will now begin in early 2009 on several new projects.

The Government will also provide \$60 million in 2008–09 for additional funding under the Black Spot program, more than doubling the current funding for projects that eliminate dangerous locations on Australian roads.

A further \$195 million will be set aside for investment in agricultural and social infrastructure to develop irrigated agricultural land around Kununurra following assessment of projects by government.

The Government will invest a further \$1.6 billion in education infrastructure. This will enhance the life chances of individual Australians and boost the productivity and prosperity of our nation. The Government will contribute \$581 million towards 11 education projects and invest \$1 billion in Teaching and Learning Capital for universities and TAFEs.

The package is also designed to support small and large businesses suffering the effects of the global financial crisis.

The Government will help ease the burden on small business by lowering pay as you go tax instalments for the 2008–09 financial year. This means the small business sector will receive the benefit of an extra \$440 million in 2008–09 to ease cash flow constraints.



The Government is introducing a 10 per cent temporary business investment allowance for new assets that cost more than \$10,000 to encourage private sector investment in plant and equipment. This will help business maintain investment plans during difficult economic times. Over the coming years the Government will be helping business through the investment allowance at a cost of approximately \$1.6 billion.

Economic benefits

Building Australia's infrastructure will play an important role in strengthening the Australian economy and supporting jobs in the face of the global financial crisis.

These national infrastructure projects and the assistance to business are expected to boost the level of GDP and employment. The expected bring-forward of capital spending as a result of the investment allowance means that the largest economic effects are in 2009–10, when GDP might be expected to be higher by $\frac{1}{4}$ to a $\frac{1}{2}$ of a percentage point, helping to create up to 32,000 jobs.

The Nation Building package is another step in the Government's long term nation building agenda. In this package we have chosen to accelerate those projects which have been tested through rigorous feasibility studies, can be commenced in short time frames, and will have maximum stimulus effect on the economy.

The Budget remains in surplus once this and other packages are taken into account.

As part of its broader nation building program, the Government is also working towards the January 2009 establishment of the Nation Building Funds, including the Building Australia Fund. At the same time, Infrastructure Australia will continue its work to identify the nation's top infrastructure priorities. Infrastructure Australia will shortly bring forward its Interim Report so that the Government can begin to consider recommended projects as soon as possible. Other infrastructure projects are also being accelerated through the Australian Rail Track Corporation and through early commencements of the Government's Building Australia Program projects.

The Government remains vigilant to future economic circumstances and will identify and implement additional measures as required.

By continuing to act ahead of the curve the Australian Government is putting the national interest first. The Australian Government will take whatever further action is necessary to strengthen the Australian economy and limit the impact of the global financial crisis on Australian jobs.

Initiative	Additional Investment 2008–09 to 2011–12 (\$b)
Australian Rail Track Corporation	1.2
Building Australia Program and other infrastructure	0.4
Education	1.6
Investment Allowance	1.6
Total	4.7





RAIL

The Government will provide a \$1.2 billion equity investment into the Australian Rail Track Corporation to help finance a \$1.6 billion investment in a massive program of track upgrades and construction that will significantly improve Australia's rail network. This is in addition to \$1.6 billion already committed to rail infrastructure through the Building Australia Program. Initiatives include:

- **Sydney – Brisbane New, Extended & Upgraded Loops (NSW)** – This project will provide additional long loops to break-up long sections on the Sydney – Brisbane corridor, and complete upgrading of loops to high-speed turnouts.
- **Melbourne – Junee Passing Lanes (Vic/NSW)** – This project will construct two additional passing lanes to improve opportunities on the Melbourne – Junee corridor for trains to pass each other at speed.
- **Seymour – Wodonga Track Upgrade (Vic)** – This project will complete concrete sleepers on the Melbourne – Sydney corridor.
- **Cootamundra – Parkes Track Upgrade (NSW)** – This project will upgrade the Cootamundra – Parkes section to a standard consistent with the rest of the interstate network.
- **Western Victoria Track Upgrade (NSW/Vic)** – This project will upgrade sections of poor quality track in Western Victoria, including rerailing, increasing ballast depth and eliminating the gap in concrete sleepers between Melbourne and Adelaide.
- **Wodonga Bypass Duplication (Vic)** – This project will lead to the construction of the Wodonga Bypass as double track.
- **Cootamundra – Crystal Brook New & Extended Loops (NSW/SA)** – This project will allow for two additional long loops by 2010 and a further four by 2011 in the corridor between Cootamundra and Crystal Brook to ensure transit times are maintained as volume grows.
- **Melbourne – Adelaide Extended Loops (SA)** – This project will allow projected growth to be accommodated while maintaining current transit times, and increase maximum train length in the Melbourne – Adelaide corridor to 1800 metres.
- **Adelaide – Kalgoorlie New & Extended Loops (SA/WA)** – This project will provide additional crossing loops of 1800 metres length to allow projected growth to be accommodated while maintaining current transit times.
- **Border – Acacia Ridge Track Upgrade (QLD)** – This project will complete concrete sleepers on the Sydney – Brisbane corridor and provide narrow gauge access between Acacia Ridge and Bromelton.

- **Hunter Valley: Liverpool Range New Rail Alignment (NSW)** – This project will see the development of a new rail alignment across the Liverpool Range that will ease expected capacity restrictions when forecast increases in coal demand are realised.
- **Hunter Valley: Bidirectional Signalling, Maitland to Branxton (NSW)** – This project involves the upgrading of signalling systems through replacement of old unreliable equipment with modern equipment. This will improve productivity by allowing trains to travel in either direction on either track, ensuring that Hunter Valley coal volume production and export capacity is optimised.
- **Hunter Valley: Minimbah Bank – Third Rail Line (NSW)** – This project will provide a significant boost to capacity on this congested section of the Hunter Valley rail network and contribute to optimising Hunter Valley coal volume production and export capacity with the construction of a third track along the length of the Minimbah Bank starting from the north of Whittingham Junction.
- **Hunter Valley: St Heliers to Muswellbrook Duplication (NSW)** – This project will contribute to the improved Hunter Valley coal volume production and export capacity by extending the existing double track, which currently ends in St Heliers as far as Muswellbrook.
- **Hunter Valley: Minimbah to Maitland – Third Rail Line (NSW)** – This project will contribute to improved coal volume production and export capacity in the Hunter Valley by increasing rail capacity and eliminate bottlenecks with the construction of an additional track between Maitland and Minimbah.
- **Hunter Valley: Ulan Line Passing Loops and Duplication (NSW)** – This project will involve the construction of new passing loops at Bylong, Warondi, Aerosol Valley and Radio Hut to increase the number of return paths available to coal trains and improve operational flexibility of trains travelling between Ulan and Muswellbrook.
- **Advanced Train Management System (Phase 2)** – The trial of this system will potentially remove the need for physical land based signalling infrastructure across the network through the use of satellite based Global Positioning System (GPS) and Broadband Data and Voice communications to manage train movements.



ROADS

The Government will invest \$4.7 billion in the Building Australia Program and other infrastructure projects. The Government will invest an additional \$711 million in 2008–09 and 2009–10, balanced by reductions in expenditure required in later years, to accelerate construction of 14 roads projects already announced under the Building Australia Program (formerly AusLink 2). The Government will invest an additional \$60 million in the Black Spots program in 2008–09. The Government will invest \$195 million over 2008–09 and 2009–10 to support economic development in the East Kimberley region. Initiatives include:

- **Black Spots** – Black Spot projects reduce the risk of accidents at dangerous locations on our roads by targeting specific sites around Australia where there have been serious crashes or where serious crashes are likely. The Australian Government is more than doubling Black Spot funding in 2008–09 with \$60 million in new funding.
- **Bulahdelah Bypass (Pacific Highway, NSW)** – This project will provide an 8.6 kilometre bypass with divided carriageway. It will also improve safety and amenity for the Bulahdelah community.
- **Sextons Hill Section, Banora Point (Pacific Highway, NSW)** – This project provides a 2.4 kilometre realignment outside the urban area. The upgrade project will improve the efficiency and safety of travel on the Pacific Highway.
- **Tarcutta Bypass (Hume Highway, NSW)** – The completion of the Tarcutta Bypass will provide a duplicated bypass of 6.8 kilometre section and remove the 50 kilometre per hour speed restriction that currently applies through Tarcutta.
- **Woomargama Bypass (Hume Highway, NSW)** – This project will provide for the completion of the Woomargama Bypass, a duplicated bypass of 8.9 kilometre section (1.5 kilometres shorter than the current route of the road through Woomargama) and remove a 70 kilometre per hour speed restriction across a 1 kilometre length.
- **Ipswich Motorway Upgrade – Dinmore to Goodna (QLD)** – The project involves widening of the existing Ipswich Motorway from four to six lanes between Dinmore and Goodna, a distance of approximately 8 kilometres.
- **Duplication of the Douglas Arterial Road – Townsville (QLD)** – This project will result in the duplication of the existing two lane Douglas Arterial Road to a four lane motorway standard from Angus Smith Drive to Riverway Drive.
- **Pacific Motorway Transit Project (Section B) – Springwood South to Daisy Hill (QLD)** – This project will upgrade the Pacific Motorway from Springwood South to Daisy Hill, including the Loganlea Road Interchange.
- **Goulburn Valley Highway – Nagambie Bypass (Vic)** – The project will improve the efficient flow of traffic along this section of the Goulburn Valley Highway which currently carries 7,500 vehicles per day (of which 21 per cent are commercial vehicles) and thus reduce travel times and improve reliability.

- **Princes Highway East – Traralgon to Sale Duplication (Vic)** – This project will upgrade the Princes Highway East to a four lane, two carriageway freeway between Traralgon and Rosedale (approximately 20 kilometres) and Rosedale and Sale (approximately 25 kilometres).
- **Western Highway – Anthony's Cutting Realignment (Vic)** – This project will lead to the construction of a four lane two carriageway freeway on a new alignment approximately 5 kilometres in length between Harkness Road West Melton and Bacchus Marsh between the western end of the Melton Bypass and the eastern end for the Bacchus Marsh Bypass.
- **Western Ring Road Upgrade and Capacity Improvement (Vic)** – The proposed works include additional lanes and enhanced traffic management systems (such as ramp metering) over the 38 kilometre length of the Western Ring Road.
- **Mandurah Entrance Road (WA)** – This project involves construction of a 7 kilometre road from the New Perth-Bunbury Highway to the City of Mandurah.
- **Northern Expressway (SA)** – This project involves the accelerated construction of the new four-lane freeway standard 22 kilometre road between Gawler and Port Wakefield Road and an upgrade of an 11 kilometre section of Port Wakefield Road to the Salisbury Highway.
- **Midland Highway – Brighton Bypass (Tasmania)** – This project will lead to the construction of a new alignment for the Midland Highway to bypass Brighton to the west.
- **East Kimberley Development Package: Expanding the Ord (WA)** – The Commonwealth is prepared to contribute a total of \$195 million over 2008–09 and 2009–10 to support economic development in the East Kimberley region through investment in social and common use infrastructure (roads, ports, power), subject to project assessment by government.



EDUCATION

The Government will invest \$1.6 billion in 13 education infrastructure projects and initiatives with a total value of \$2.5 billion. This will create jobs, enhance the life chances of individual Australians and boost the productivity and prosperity of our nation. World-leading infrastructure is critical to world-leading tertiary education and research. Investments include \$1 billion towards Teaching and Learning Capital for universities and TAFEs. Initiatives include:

- **The RMIT Design Hub at RMIT University** – The RMIT Design Hub is 12,000 m² building providing highly flexible design ‘warehouse’ spaces and collaborative technical workshops supporting cross disciplinary research and postgraduate education in design. Its scale, composition and range of facilities including workshops and a design archive make the Design Hub unique in Australia and the world.
- **The Centre for Obesity, Diabetes and Cardiovascular Disease at the University of Sydney** – This project will result in the University of Sydney building the Centre for Obesity, Diabetes and Cardiovascular Disease – which is stage one of a major health and life sciences precinct at the university.
- **The Energy Technologies Building at the University of New South Wales** – The UNSW will build the Energy Technologies Building as the focal point for its new Centre for Energy Research and Policy Analysis (CERPA). The proposed building will support UNSW’s world-leading work in photovoltaics as well as research into carbon capture and storage, reservoir characterisation, nanomaterials and policy and market analysis.
- **The Institute for Photonics and Advanced Sensing at the University of Adelaide** – The University will create a leading international transdisciplinary Institute which will allow it to develop new fibre-based platform technologies to underpin paradigm-changing tools for human health, the environment, industrial processes and defence systems. It will also facilitate breakthroughs in physics, chemistry, biology and environmental science.
- **New Horizons Centre at Monash University** – Through physical and virtual collaboration, the New Horizons Centre brings together dispersed science and engineering expertise in a new, world-class research facility, at the heart of the Clayton Innovation Precinct.
- **The Hearing Hub at Macquarie University** – Macquarie University will build a world-class hearing research and teaching facility, bringing together key University research groups in hearing and cognitive sciences, neurosurgery, special education, and electronic engineering with major organisations involved in developing hearing technologies and services.
- **The Materials and Minerals Science Learning and Research Hub at the University of South Australia** – The university will construct a 5000 m² dedicated building housing innovative, multidisciplinary laboratories and learning spaces designed to grow the next generation of engineering, material and mineral science graduates and provide the interface required to ensure effective knowledge transfer to regional, national and international industry.

- **The SMART Infrastructure Facility at the University of Wollongong** – The University of Wollongong will create the SMART Infrastructure Facility, a world-first comprehensive research and training infrastructure facility of integrated laboratories that will transform the way that infrastructure-related disciplines are taught and researched. Facilities will include lecture theatres, specialised research and teaching laboratories and collaborative research spaces.
- **The University of Queensland School of Veterinary Science at Gatton Campus** – University of Queensland will build three state-of-the-art new buildings – the Veterinary Science building, the UQ Veterinary Hospital and the Veterinary Teaching and Research Facility – as well as completely renovating an existing building to house modern pre-clinical teaching laboratories.
- **The Peter Doherty Institute for Immunity and Infection at the University of Melbourne** – The Peter Doherty Institute will co-locate the University's world-renowned Department of Microbiology and Immunology and a new Life Sciences Computation Centre, with a number of Victorian Government and World Health Organisation laboratories. The facilities will include a peak computing and bioinformatics capability; a high-throughput DNA sequencing facility; containment laboratories; and teaching & networking spaces.
- **The International Microsimulation Centre at the University of Canberra** – The University of Canberra will construct a purpose built teaching, learning and research training Centre for the National Centre for Social and Economic Modelling (NATSEM) on the main campus at Bruce. The building will include a public gallery and auditorium as well as teaching and research spaces for NATSEM students, staff and international visitors.
- **Teaching and Learning Capital Fund (Higher Education)** – all universities – TLC is a one-off \$500 million funding round targeting capital expenditure towards the development of teaching and learning spaces in Australia's universities that are physically and technologically appropriate for 21st century approaches to tertiary education. TLC funding will especially benefit institutions with large numbers of students. Universities will determine the projects to be undertaken consistent with their individual missions and campus needs.
- **Teaching and Learning Capital Fund (Vocational Education and Training)** – TLC is a one-off \$500 million funding which will boost TAFE infrastructure & capacity; position TAFE infrastructure for tomorrow's challenges; and invest in Community Education.





CHAPTER 2: Rail





2. RAIL

The Australian Government recognises that for Australia to meet its future freight challenges, rail must play an integral role. That is why rail infrastructure funding is at the heart of the Government's nation building agenda. By including not only road but rail, port and intermodal transport hubs in the next land transport investment program, the focus has shifted from a roads-only approach that previously dominated infrastructure planning.

The Government's investment in our rail infrastructure will not only improve efficiency. It will also provide employment in regional and urban Australia in construction and its supporting industries. It is estimated that a typical project, taking approximately five months to complete, will require a construction workforce of close to 120 employees.

Rail accounts for around 60 per cent of east-west freight movements due to the greater efficiencies of the long distance and rail infrastructure that enables use of longer trains. The balance of freight movements in this market is taken up by coastal shipping and, to a lesser extent, road.

For the north-south freight market, however, rail has a significantly lower share of interstate freight movement than road (less than 12 per cent in 2006). Rail is less efficient on this sector due to shorter distances, lower capacity rail infrastructure and cost inefficiencies associated with freight trains going through the major urban areas where much of the peak hour track capacity is taken up for passenger rail services. This is particularly true for Sydney. In fact, it is estimated that on a trip from Brisbane to Adelaide, trains spend on average 11 hours – or 21 per cent of the journey time – getting through metropolitan Sydney.

The key to improving productivity and freight efficiency is through improving competitiveness of freight rail and critical supply chains, including the vital rail linkages to our major ports. Benefits include a reduction in greenhouse gases, employment generation in the short term to improve long term productivity, improved safety and a reduction in the number of heavy freight vehicles on the roads. It is estimated that each 1500 metre train is equivalent to 100 semi trailers.

Under the Australian Government's current five year infrastructure program, the Government and the Australian Rail Track Corporation (ARTC) are investing around \$2.4 billion to improve rail transit times throughout the interstate rail network, and in particular, the north-south corridor. The improvements will in turn help lower operating costs for rail operators and end users and increase rail market share.

The completion of this program will see the transit times for 1500 metre trains travelling between Sydney and Brisbane reduced by over four hours or around 20 per cent to 15 hours and 6 minutes, and the transit times for 1500 metre trains travelling between Melbourne and Sydney reduced by around three hours or 20 per cent to 10 hours and 30 minutes.

In addition to this investment, the Australian Government will fund over \$1.6 billion of rail and intermodal projects under the Building Australia Program over the next five years. Key investments include \$840 million to increase capacity for freight trains between Sydney and Newcastle, potentially reducing transit times by a further 35 minutes and providing for additional capacity for four freight trains per hour for 22 hours per day. The Government is also providing \$150 million for road and rail upgrades to improve access and handling arrangements at Port Botany and reducing bottlenecks by enhancing capacity on the Port Botany Line. These projects will play an important role in expanding the future capacity and efficiency of our land transport network, and result in flow-on environmental and fuel efficiency benefits.

To provide ARTC with a necessary financial backing to deliver on its massive work program across the National Rail Network, the Australian Government will, through this infrastructure statement, inject around \$1.2 billion in additional equity into ARTC over the next two years. This will enable ARTC to fund or generate debt to fund projects across its national network with further works in Queensland, New South Wales, Victoria, South Australia and Western Australia.

Overall these projects are expected to further reduce transit times between Melbourne and Brisbane by nearly half an hour, and by as much as an hour between Sydney and Perth. In addition, they are expected to reduce annual maintenance costs by as much as \$3.4 million on the north-south corridor and \$7.2 million on the east-west corridor. Further improvements include improved ride quality, increased axle loads and increased travelling speeds in hot weather.

A further significant proportion of the funding will be directed to improving the efficiency of the Hunter Valley Coal Chain which is the world's largest coal export supply system. Hunter Valley coal production is forecast to more than double over the next five years from 97 million tonnes per annum (mtpa) currently to over 200mtpa by 2014, and could reach as high as 300mtpa. To help cope with this growth, the ARTC has embarked on a \$1 billion Hunter Valley Investment Strategy aimed at improving coal carrying capacity in the region.

The ARTC's economic modelling suggests that the costs associated with not undertaking this investment in the Hunter Valley would be significant. Without it, up to 9,000 direct and 27,000 indirect jobs would not be created and over \$21 billion of coal export receipts to 2016–17 not realised.

Improving transit times, rail efficiency, enhancing freight movement and increasing connectivity between rural and urban centres are integral to the Australian Government's nation building infrastructure investment agenda and are further enhanced through the significant additional investment outlined in this statement.



1 NEW LOOP, 3 LOOP EXTENSIONS AND 2 LOOP UPGRADES SYDNEY – BRISBANE



SYDNEY – BRISBANE NEW, EXTENDED AND UPGRADED LOOPS

What is this project?

The project will consist of the extension to 1500 metres of three crossing loops at Kilbride, Kerewong and Loadstone, one new 1500 metre crossing loop at Mindarabilla and upgrade of two loops at Killawarra and Johns River.

Why is this railway project important?

Following the completion of the upgrade to the North-South rail line currently being undertaken by ARTC there will remain four sections of track between Maitland and Brisbane with running times that are significantly longer than the rest of the corridor. Construction of crossing loops for a number of sections of the track will reduce transit time and allow more trains to travel on the track, increasing capacity of the line. There are also two loops remaining that retain old, slow-speed connections to the main line. It is proposed to upgrade these to high-speed connections, thereby providing a consistent standard across the rail corridor.

What is the total investment?

The total cost of the project is estimated at \$45.1 million.

Estimated costs:

New loop at Mindaribba	\$13.9 million
Loop extension at Kilbride	\$11.3 million
Loop extension at Kerewong	\$ 9.8 million
Loop extension at Loadstone	\$ 7.1 million
Loop upgrade at Killawarra	\$ 1.4 million
Loop upgrade at Johns River	<u>\$ 1.6 million</u>
Total	\$45.1 million

What is the project timeline?

Work on all projects is expected to commence between March and July 2009 with the full scope of work to be completed by December 2009.

Benefits of this project?

The project is expected to create up to 40 jobs per loop extension or upgrade.

The new crossing loop and extensions and upgrades to the existing crossing loops will increase the capacity of the North-South rail corridor and reduce the transit time for trains travelling between Brisbane, Sydney and Melbourne.

Crossing loops are sections of track off the mainline which allow trains in opposing directions to pass each other, by allowing one train to go off the mainline while the other train continues on the mainline. Once the train on the mainline has crossed, the other train can re-enter the mainline.



2 PASSING LANES MELBOURNE – JUNEJEE



MELBOURNE TO JUNEЕ PASSING LANES

What is this project?

The project will involve the construction of two additional passing lanes (7 kilometres long) to improve opportunities on the Melbourne- Junee corridor for trains to pass each other at speed.

Why is this railway project important?

Following the completion of the current North-South upgrade program by the ARTC, there will be two sections on the Melbourne to Junee corridor that are split with crossing loops rather than passing lanes. Constructing passing lanes will reduce transit times and increase capacity of the line.

Passing lanes are similar to crossing loops, but are longer sections of track off the mainline thereby allowing trains that go off the mainline to continue at speed before re-entering the mainline.

What is the total investment?

The total cost of the project is estimated at \$29.7 million.

Culcairn Passing Lane	\$13.2 million
Donnybrook Passing Lane	<u>\$16.5 million</u>
Total	\$29.7 million

What is the project timeline?

Work is expected to commence on this project by February 2009, with construction scheduled for completion by December 2009.

Benefits of this project?

The project is expected to create up to 40 jobs for the life of the project.

The benefits of this project will include reduced transit times, increased capacity and improved operational reliability for trains travelling between Brisbane, Sydney and Melbourne.



SEYMOUR – WODONGA



SEYMOUR TO WODONGA TRACK UPGRADE

What is this project?

This project will involve the laying of around 225,000 sleepers to complete the program of concrete sleepers on the Melbourne – Sydney corridor, which has seen the laying of over a million sleepers on the corridor to date.

Why is this railway project important?

The current North-South rail line investment strategy provided for complete concrete re-sleeping between Melbourne and Sydney. A recent agreement between the ARTC and the Victorian Government to take over the broad gauge track between Seymour and Wodonga and convert it to standard gauge will enable an additional 150 kilometres of track to be upgraded to concrete sleepers.

What is the total investment?

The total cost of this project is estimated at \$45 million.

What is the project timeline?

Sleeper production will commence in February 2009, and installation will commence by April 2009, with installation expected to take four months.

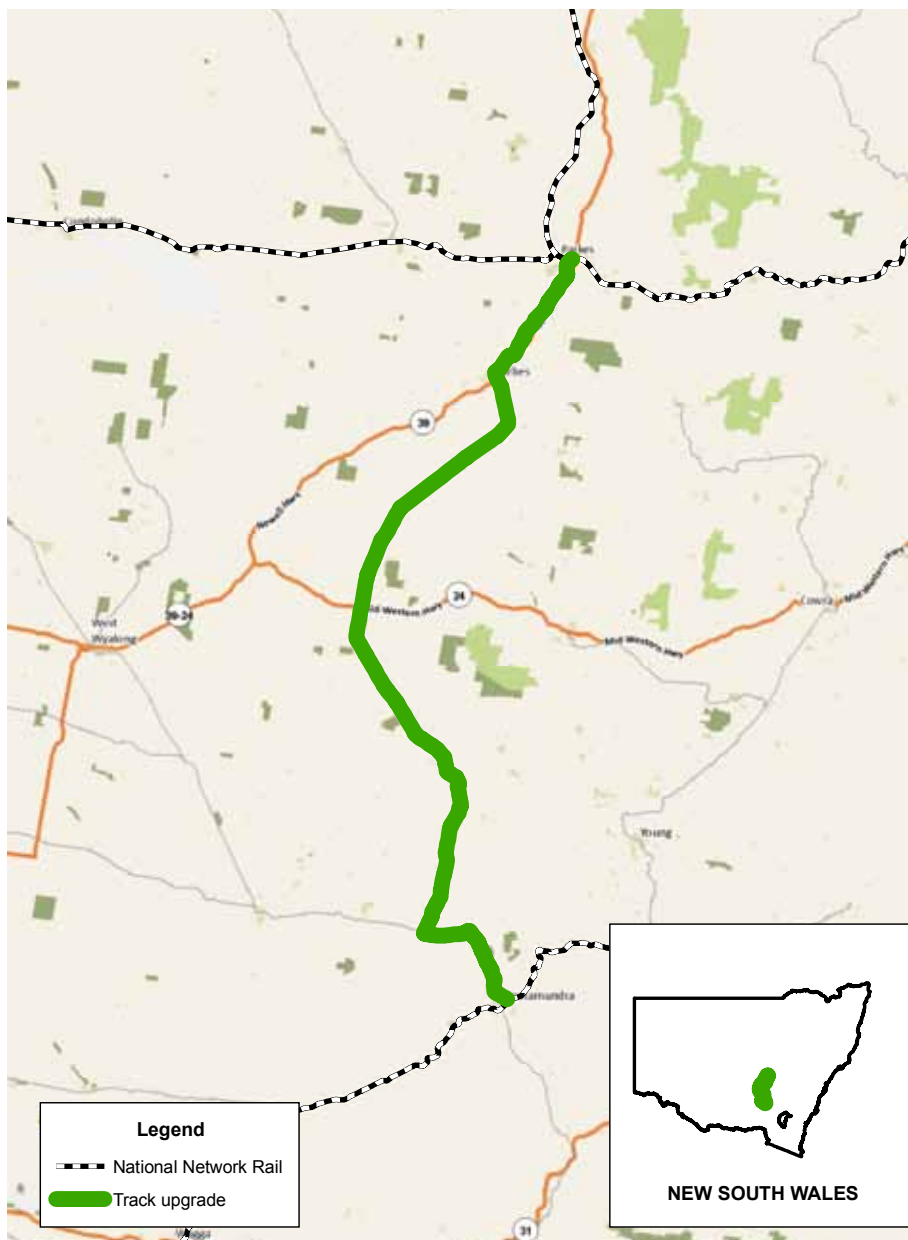
Benefits of this project?

The project is expected to create up to 120 jobs over the life of the project.

The project is expected to complete the concrete re-sleeping of the North-South corridor to significantly improve the efficiency and the reliability of the interstate rail network.



COOTAMUNDRA TO PARKES TRACK UPGRADE



COOTAMUNDRA TO PARKES TRACK UPGRADE

What is this project?

This project will involve replacing existing timber sleepers with concrete sleepers in the 201 kilometre section between Cootamundra and Parkes (301,000 sleepers), increasing the ballast depth or foundation on which the rail sits and re-railing to remove badly worn and highly fatigued rail.

Why is this railway project important?

The Cootamundra to Parkes section of the network was originally built as a secondary line. A full upgrade of the corridor needs to be undertaken to bring it to interstate network standard. The weight and capacity constraints on the network result in fewer trains on the line travelling at lower average speeds.

What is the total investment?

The total cost of the project is estimated at \$91.5 million.

What is the project timeline?

Sleeper production for this project is expected to commence in May 2009 with installation commencing by July 2009. Construction is expected to take five months.

Benefits of this project?

The project is expected to create up to 120 direct jobs over the life of the project.

This project will result in reduced lifecycle cost and transit times, improved ride quality, increased axle loads and eliminate temperature related speed restrictions.



WESTERN VICTORIA TRACK UPGRADES



WESTERN VICTORIA TRACK UPGRADES

What is this project?

This project will upgrade sections of the poor quality track in Western Victoria, including re-railing, increasing ballast depth or the foundation on which the rail sits and eliminating the gap in concrete sleepers between Melbourne and Adelaide.

Why is this railway project important?

Most of the corridor between Melbourne and Adelaide has previously been upgraded in conjunction with the installation of concrete sleepers. There remain a number of areas which are yet to be upgraded that suffer from poor ride quality, poor gauge holding and inadequate ballast.

These sections generally correspond to the remaining timber sleepered track. The section between Maroona and the South Australian border is the main area requiring upgrading. There are three additional smaller sections of timber sleepered track between Melbourne and Gerringhap, two of which are dual gauge. It is desirable to upgrade all of these sections by increasing ballast depth, re-railing as appropriate and by installing concrete sleepers to reduce maintenance cost and bring about a number of operational benefits.

What is the total investment?

The total cost of the project is estimated at \$105.7 million.

What is the project timeline?

Works would commence on this project by April 2009 with construction expected to take seven months.

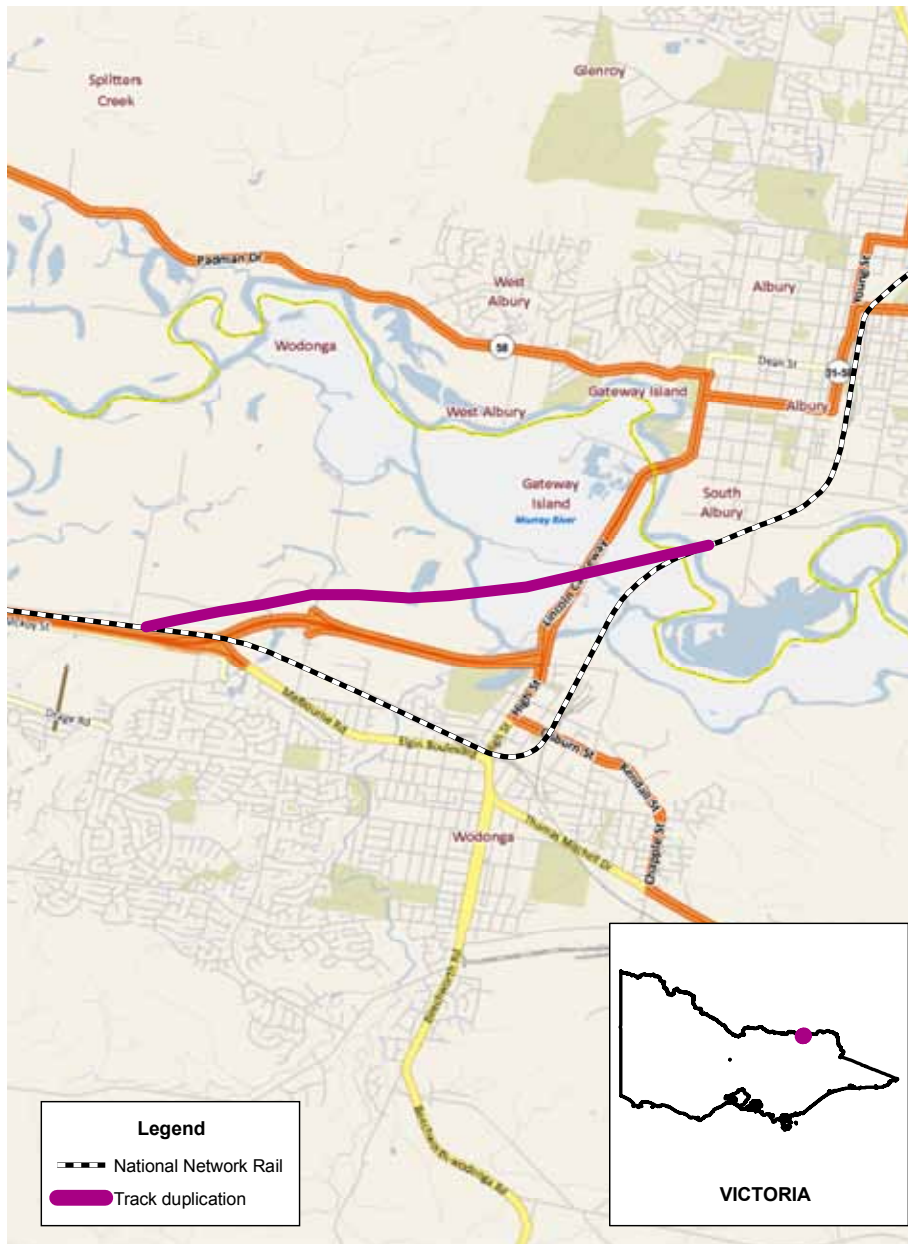
Benefits of this project?

The project is expected to create up to 120 direct jobs over the life of the project.

The benefits of this project include reduced transit time, improved ride quality, the elimination of temperature related speed restrictions and reduced lifecycle and maintenance costs.



WODONGA BYPASS DUPLICATION



WODONGA BYPASS DUPLICATION

What is this project?

ARTC is currently constructing the Wodonga Bypass on behalf of the Australian and Victorian Governments. It is being constructed as a single track, but provision was made in the design for a future second track. This project funds the second track for the duplication of the Wodonga rail bypass that is currently under construction.

Why is this railway project important?

The project forms part of a broader program of works being undertaken on the Melbourne to Sydney rail corridor, including concrete resleepering, construction of passing lanes and improved signalling, which will result in an overall reduction in transit time between the two cities to around 10.5 hours from around 13.5 hours previously. Urban amenity in the City of Wodonga will be improved by the removal of the railway passing through the town and, consequently, of 11 rail level crossings within the City.

Provision of the second track now would be another step toward the long-term goal of full double track between Melbourne and Sydney.

By improving infrastructure capacity at this location, opportunities to grow the market share of rail traffic on the Melbourne to Sydney corridor will be improved.

What is the total investment?

The total cost of the duplication is estimated at \$50 million. This is in addition to the \$45 million the Australian Government has already committed to the Wodonga Bypass, with the Victorian Government committing \$111 million.

What is the project timeline?

Work is expected to commence on this project by January 2009. Construction would be in accordance with the existing Wodonga Bypass program, scheduled for completion in April 2010.

Benefits of this project?

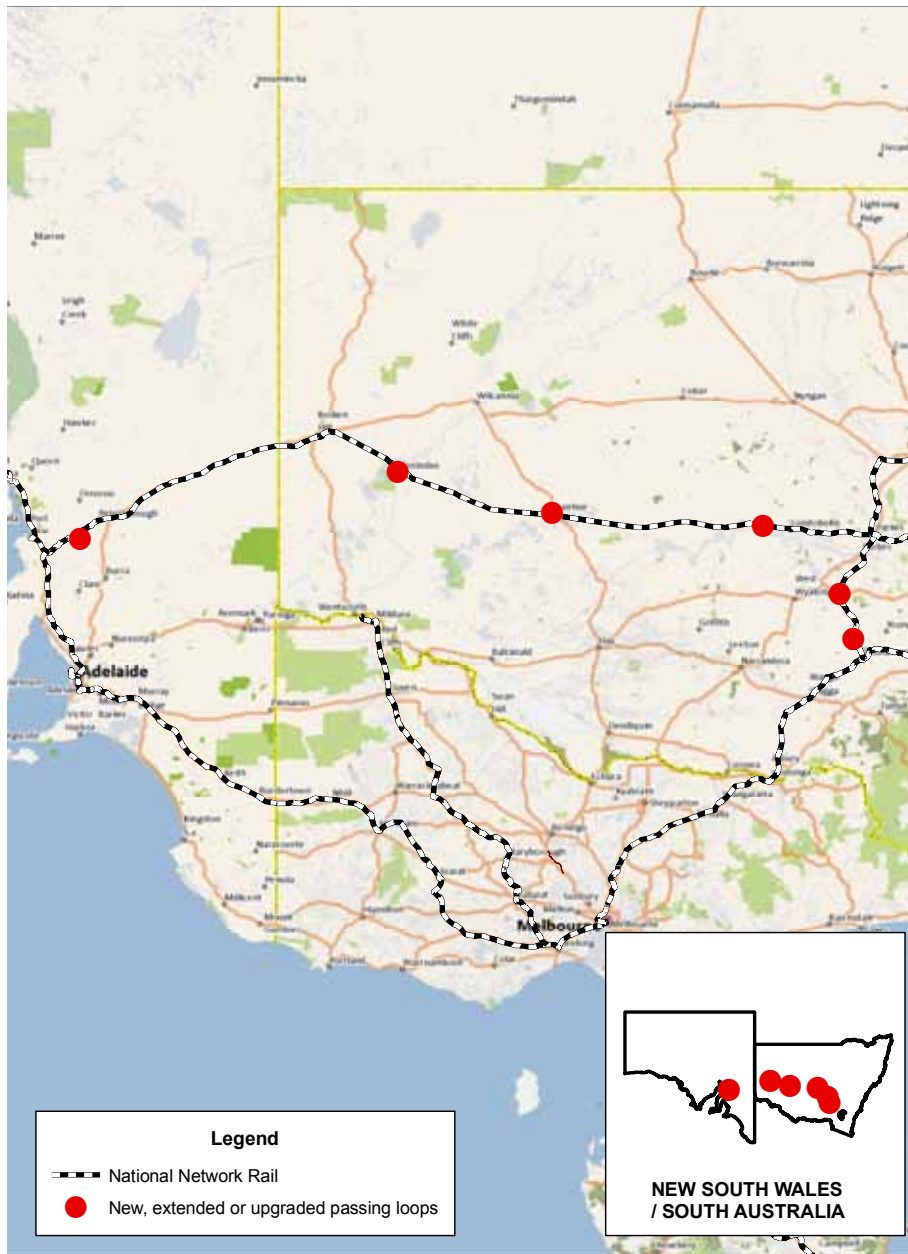
The project is expected to create up to 80 direct jobs over the life of the project.

The benefits of this project include increased rail capacity and reduced transit time for trains travelling between Brisbane, Sydney and Melbourne.

The decision to introduce the additional track during the actual construction of the originally funded single bypass track will result in cost savings in the project implementation.



2 NEW & 4 EXTENDED LOOPS COOTAMUNDRA – CRYSTAL BROOK



COOTAMUNDRA – CRYSTAL BROOK NEW & EXTENDED LOOPS

What is this project?

This project will extend each of the four existing loops between Parkes and Crystal Brook (at Jamestown, Ivanhoe, Menindee and Kiacatoo) to 1800 metres, and construct two new 1800 metre loops between Cootamundra and Parkes (at Springvale and Wards Lane).

Why is this railway project important?

The project will allow projected growth in freight volumes to be accommodated while maintaining current transit times.

What is the total investment?

The total cost of the project is estimated at \$42 million.

What is the project timeline?

Work is expected to commence on these projects by July 2009 with construction anticipated to take 13 months.

Benefits of this project?

The project is expected to create up to 40 direct jobs over the life of the project.

In conjunction with provision of additional long loops between Melbourne – Adelaide and Adelaide – Kalgoorlie, this project will allow rail growth to be accommodated with no increase in average transit time.



7 LOOP EXTENSIONS MELBOURNE – ADELAIDE



MELBOURNE – ADELAIDE EXTENDED LOOPS

What is this project?

The project will extend seven short crossing loops between Adelaide and Bordertown to 1800 metres. The loops to be extended are located at Mount Lofty, Petwood, Murray Bridge, Coomandook, Tintinara, Keith and Bordertown.

Why is this railway project important?

This project will allow projected growth to be accommodated while maintaining current transit times, and increase maximum train length that can travel on the Melbourne-Adelaide corridor to 1800 metres.

What is the total investment?

The total cost of this project is estimated at \$76 million.

What is the project timeline?

Works are expected to commence by August 2009 with construction expected to take about 20 months.

Benefits of this project?

The project is expected to create up to 40 jobs over the life of the project.

The main benefit of this project will be to increase the maximum train length on the line to 1800 metres. This will improve efficiency and capacity and, in conjunction with additional long loops between Adelaide to Kalgoorlie and Cootamundra to Crystal Brook, will allow for rail growth to be accommodated with no increase in average transit time.



4 NEW & 1 EXTENDED LOOP ADELAIDE – KALGOORLIE



ADELAIDE – KALGOORLIE NEW & EXTENDED LOOPS

What is this project?

Four new crossing loops, each measuring 1800 metres, between Tarcoola and Kalgoorlie (between Bates & Ooldea, Fischer & Cook, Kitchener & Zanthus and Coonana & Koronie) and one loop extension between Adelaide and Crystal Brook at Bolivar.

Why is this railway project important?

This project will allow projected growth in freight volumes on the East-West rail corridor to be accommodated while maintaining current transit times.

What is the total investment?

The total cost for the project is estimated at \$23 million.

What is the project timeline?

Work is anticipated to commence on this project by June 2009 with construction expected to take 12 months.

Benefits of this project?

The project is expected to create up to 40 direct jobs over the life of the project.

In conjunction with crossing loop extensions between Melbourne and Adelaide and between Cootamundra and Crystal Brook, this project will allow rail growth to be accommodated with no increase in average transit time.

QLD BORDER – ACACIA RIDGE



QLD BORDER – ACACIA RIDGE TRACK UPGRADE

What is this project?

This project will complete concrete sleepers on the Sydney – Brisbane corridor and provide narrow gauge access between Acacia Ridge and Bromelton in Queensland.

Why is this railway project important?

Concrete re-sleeping will reduce transit times as trains will be able to travel faster through curved sections of track. Concrete sleepers are fire resistant and unlike timber sleepers do not expand in high temperatures which can cause safety hazards when tracks buckle. Provision of narrow gauge access to the Bromelton site (52 kilometres south of Acacia Ridge, Queensland) is an important improvement for the region as it will support industrial development in the area.

What is the total investment?

The total cost of the project is estimated at \$55.8 million.

Estimated costs:

Re-sleeper and dual gauge Acacia Ridge – Bromelton	\$36.4 million
Re-sleeper Bromelton – Glenapp Standard Gauge	\$11.2 million
Convert loops to dual gauge	<u>\$ 8.2 million</u>
Total	\$55.8 million

What is the project timeline?

Fabrication of precast concrete sleepers for this project is expected to commence in February 2009. Installation works are scheduled to commence by June 2009 and are expected to take around six months. The anticipated completion date is December 2009.

Benefits of this project?

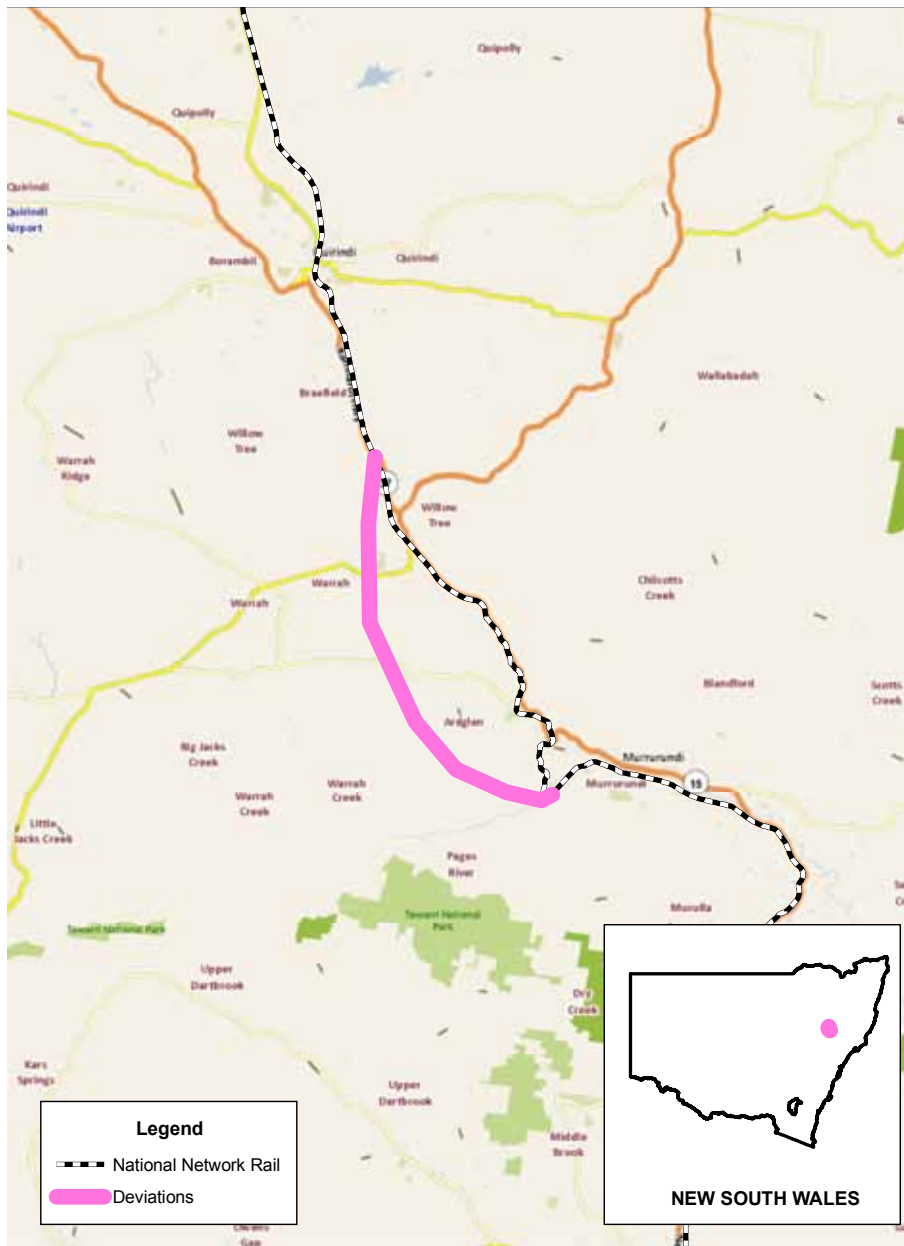
The project is expected to create up to 120 jobs over the life of the project.

Benefits will include new narrow gauge access to Bromelton, supporting industrial development. It will also reduce transit times and lifecycle costs, improve ride quality and eliminate temperature related speed restrictions which can occur on timbered sections of the rail line.

This investment is subject to the Queensland government agreeing to the ARTC taking control of this section of the track.



LIVERPOOL RANGE NEW RAIL ALIGNMENT



HUNTER VALLEY: LIVERPOOL RANGE NEW RAIL ALIGNMENT

What is this project?

The project entails the development of a new rail alignment across the Liverpool Range that will ease expected capacity restrictions when forecast increases in coal demand are realised. Alignment options include two variations of surface options with reduced grades that run predominantly on the surface and make use of the existing tunnel at Ardglen, and tunnel options with reduced grades, and a major new tunnel through the Liverpool Range at a lower elevation than the existing tunnel.

Why is this railway project important?

The single track section of line north of Muswellbrook to the Gunnedah basin is highly complex. In addition to its coal traffic it carries passenger trains and a high level of grains, fuel, cotton and flour. Coal demand on this line has already increased significantly and is forecast to increase further very rapidly. The Ardglen bank, crossing the Liverpool Range, is a particular impediment to efficient operations. The severe grades on the short section between Willow Tree and Murrurundi dictate the limits for train operations on the whole route from the Gunnedah basin to Newcastle.

What is the total investment?

The total cost of the project is estimated at \$290 million, to be part funded by ARTC, with opportunities for coal export industry participation. The additional \$580 million Australian Government equity injection into ARTC will facilitate the implementation of the project.

What is the project timeline?

Works are scheduled for completion in 2011.

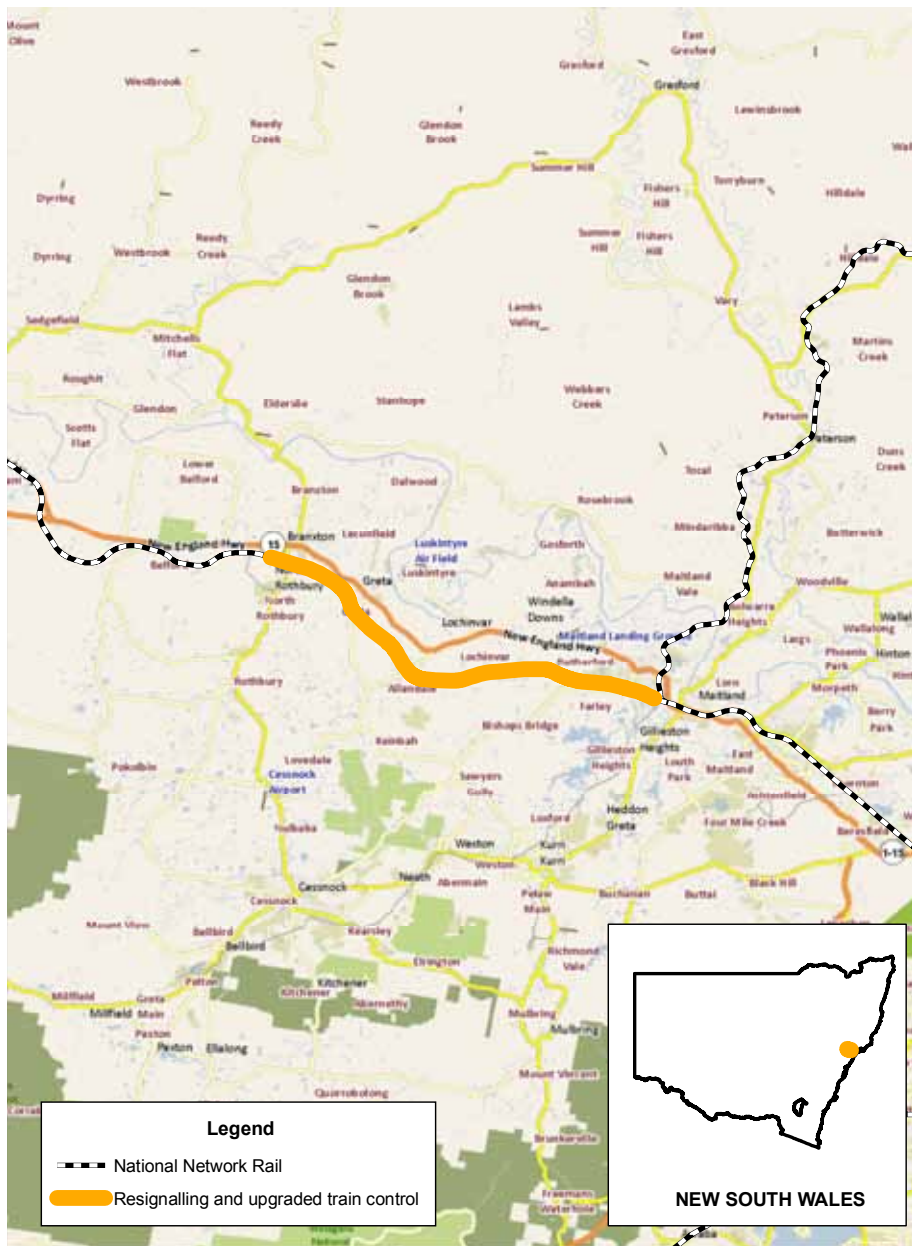
Benefits of this project?

The ARTC's combined \$1 billion investment in the Hunter Valley is expected to generate up to 650 direct jobs at the peak of its construction phase.

This project will increase rail capacity to move coal, grains, cotton and flour, and keep pace with anticipated improvements to the port capacity for coal exports.



BIDIRECTIONAL SIGNALING MAITLAND – BRANXTON



HUNTER VALLEY: BIDIRECTIONAL SIGNALLING BETWEEN MAITLAND AND BRANXTON

What is this project?

The project involves the upgrading of signalling systems through the replacement of old signalling equipment with modern and more reliable equipment that will allow trains to travel in either direction on either track.

Why is this railway project important?

This project will improve productivity on the Hunter Valley rail network by allowing trains to travel in either direction on either track which will optimise coal volume production and export capacity.

What is the total investment?

The total cost of the project is estimated at \$40 million. The additional \$580 million Australian Government equity injection into ARTC will facilitate the implementation of the project.

What is the project timeline?

Work is scheduled for completion in 2009.

Benefits of this project?

The ARTC's combined \$1 billion investment in the Hunter Valley is expected to generate up to 650 direct jobs at the peak of its construction phase.

Bidirectional signalling will facilitate safety improvements for track operation. Reduced maintenance costs are also expected where track maintenance can be undertaken without disrupting line operations. Overall, the project enhances the capacity of the Hunter Valley Rail Network.



MINIMBAH BANK THIRD RAIL LINE



HUNTER VALLEY: MINIMBAH BANK THIRD RAIL LINE

What is this project?

The project involves the construction of a third track along the length of the Minimbah Bank starting from the north of Whittingham Junction.

Why is this railway project important?

This project will provide a significant boost to capacity on this bottleneck section of the Hunter Valley rail network and contribute to optimising Hunter Valley coal volume production and export capacity.

What is the total investment?

The total cost of the project is estimated at \$114 million. The additional \$580 million Australian Government equity injection into ARTC will facilitate the implementation of the project.

What is the project timeline?

Works are scheduled for completion in 2010.

Benefits of this project?

The ARTC's combined \$1 billion investment in the Hunter Valley is expected to generate up to 650 direct jobs at the peak of its construction phase.

This project will reduce the bottleneck and allow trains to join the mainline from the Mt Thorley branch line with minimum interference. The provision of a third 'road' or rail line will increase the capacity of the line to 165 million tonnes per annum and facilitate the recovery of trains in the event of train stalling or break-downs. It will also increase the efficiency and reliability of passenger services by allowing passenger trains to overtake freight trains and allow two trains to traverse the 1 in 80 gradient simultaneously.



ST HELIERS – MUSWELLBROOK DUPLICATION



HUNTER VALLEY: ST HELIERS – MUSWELLBROOK DUPLICATION

What is this project?

The project involves extending existing double track from St Heliers to Muswellbrook, new signalling and replacement of three bridges.

Why is this railway project important?

Completion of this project will contribute to the improved Hunter Valley coal volume production and export capacity.

What is the total investment?

The total cost of the project is estimated at \$27 million. The additional \$580 million Australian Government equity injection into ARTC will facilitate the implementation of the project.

What is the project timeline?

Works are scheduled for completion in 2009.

Benefits of this project?

The ARTC's combined \$1 billion investment in the Hunter Valley is expected to generate up to 650 direct jobs at the peak of its construction phase.

This project will create significant additional rail capacity in this critical section of the coal chain, through increasing the available daily freight train paths from 21 to 96 between Antiene and Muswellbrook. Loss of capacity due to maintenance activity and further capital works will be minimised by the inclusion of bi-directional signalling.



MINIMBAH – MAITLAND THIRD RAIL LINE



HUNTER VALLEY: MINIMBAH TO MAITLAND – THIRD RAIL LINE

What is this project?

The project involves the construction of an additional track between Maitland and Minimbah to increase capacity of the rail network in the Hunter Valley.

Why is this railway project important?

This project will contribute to improved coal volume production and export capacity in the Hunter Valley by increasing rail capacity and eliminating bottlenecks.

What is the total investment?

The total estimated cost of the project is \$270 million. The additional \$580 million Australian Government equity injection into ARTC will facilitate the implementation of the project.

What is the project timeline?

Construction will commence in 2009 with a scheduled completion in 2012.

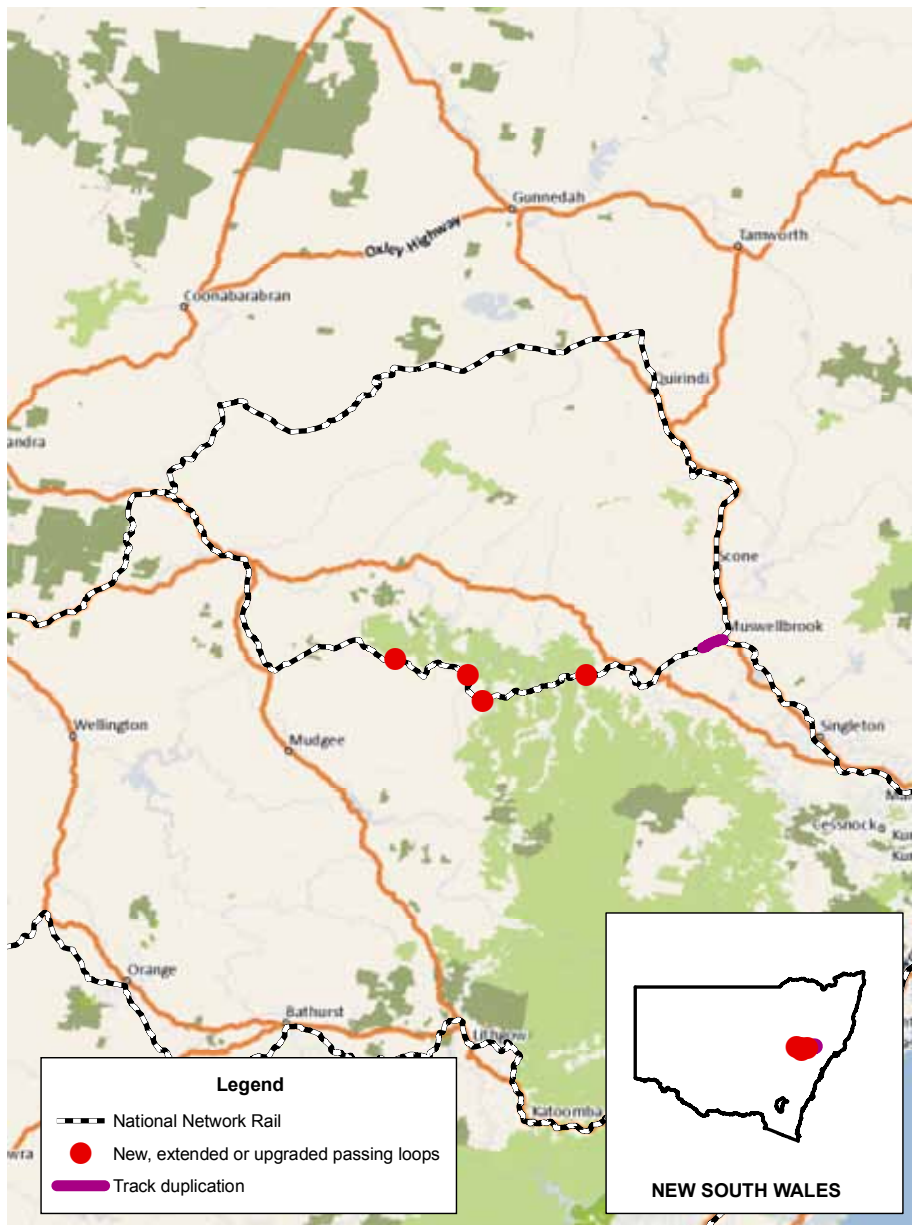
Benefits of this project?

The ARTC's combined \$1 billion investment in the Hunter Valley is expected to generate up to 650 direct jobs at the peak of its construction phase.

The project will further reduce the impact of maintenance and provide additional surge capacity on this section of track to ensure that the capacity of the rail line will meet or exceed the capacity of the Port of Newcastle.



ULAN LINE PASSING LOOPS AND DUPLICATION



HUNTER VALLEY: ULAN LINE PASSING LOOPS AND DUPLICATION

What is this project?

The project involves the construction of new passing loops at Bylong, Warondi, Aerosol Valley and Radio Hut and duplication of the rail line from Bengalla to Muswellbrook.

Why is this railway project important?

This project will provide a significant boost to capacity on this section of the Hunter Valley rail network and contribute to optimising Hunter Valley coal volume production and export capacity.

What is the total investment?

The total cost of the project is estimated at \$57 million. The additional \$580 million Australian Government equity injection into ARTC will facilitate the implementation of the project.

What is the project timeline?

Works are scheduled for completion in 2011.

Benefits of this project?

The ARTC's combined \$1 billion investment in the Hunter Valley is expected to generate up to 650 direct jobs at the peak of its construction phase.

The Ulan line extends approximately 170 kilometres, between Muswellbrook in the Upper Hunter and Gulgong, west of the Dividing Range. It is a single track line with passing loops currently spaced every 40 kilometres.

Coal demand on this line is forecast to increase rapidly for both export and for domestic coal to the Hunter Valley power stations.

In conjunction with the Muswellbrook Yard reconfiguration and the installation of the centralised train control (CTC), which allows for higher average train speeds, the completion of the four new passing loops and duplication of the single track between Bengalla and Muswellbrook will increase the number of return paths available to coal trains to 11 and provide increased operational flexibility for the crossing of trains between Ulan and Muswellbrook.



ADVANCED TRAIN MANAGEMENT SYSTEM (ATMS) PILOT PROJECT



ADVANCED TRAIN MANAGEMENT SYSTEM (PHASE 2)

What is this project?

The Advanced Train Management System (ATMS) involves the use of satellite based Global Positioning System (GPS) and Broadband Data and Voice communications to manage train movements. Phase 2 of the ATMS project will trial the technology on a section of track in South Australia. If the trial proves successful it is proposed that a common train management system is established for ARTC's entire interstate and Hunter Valley networks. The system will replace the many inherited and disparate physical train control and signalling systems with an advanced geographical system utilising global positioning, 3G broadband communications and satellite technology.

Why is this project important?

Investment in an automated ATMS has the potential to increase the capacity of the Network and remove the need for physical land based signalling infrastructure across the network.

What is the total investment?

The Australian Government is providing \$45 million toward this phase of the project. Full implementation of the project following a successful trial could provide opportunities for industry participation.

The ATMS Blueprint (Phase 1) of the project was funded by the Australian Government and completed in late 2006 at a cost \$15.8 million. ARTC has committed \$45 million of the funds required for the \$90 million Phase 2 trial.

What is the project timeline?

The trial has commenced and is expected to take around three and a half years.

Benefits of this project?

This project is expected to create up 47 jobs over the life of the project.

If proven the ATMS has the potential to remove the need to replicate expensive track capacity and replace ageing signalling systems. It has the potential to significantly reduce the safe gaps between trains, or 'headway', allowing more trains on the network and reducing transit times across ARTC's network.





CHAPTER 3: Roads





3. ROADS

Efficient and modern transport infrastructure is critical to Australia's future economic and social prosperity.

The Government's investment in our road and rail networks underpins our nation's productive capacity and help keep our economy ticking over. They also help keep our communities connected and provide essential links to community services.

Providing a 21st century transport network is therefore important to every Australian.

In recognition of the important role transport infrastructure plays in driving our nation's productivity, stimulating the economy, and building business confidence, the Australian Government has embarked on a historic nation building agenda.

Over the next five years, the Government has committed \$22.7 billion for all land transport infrastructure. This is in addition to the \$3.2 billion to be invested in nation building road and rail projects across the country in 2008–09.

The Nation Building package delivers an additional \$328 million in 2008–09 for improvements to interstate transport networks and critical freight corridors across the country in order to meet the challenges of a 21st century economy.

By advancing the allocation of funds, the Government is kick-starting its nation building agenda, signalling its intention to get on with the job of improving Australia's road links for all commuters.

Across the road network, the Government is contributing to the construction of bypasses, ring roads and duplications. We are making important safety improvements, such as wider roads, sealing road shoulders, improving intersections and providing extra overtaking lanes. We are also funding enhanced traffic management systems to improve the flow of traffic across key parts of the network.

The Government's investments in our transport infrastructure will not only improve efficiency and safety. They also provide employment in regional and urban Australia in the construction industry and its supporting industries.

It is expected that both bulk and non-bulk freight will almost double over the next 20 years, growing at a rate of 3.5 per cent a year, which is faster than GDP growth.

As well as improving productivity within the freight sector, transport improvements increase productivity in those activities dependent on freight transport.

The Australian Government has made tackling congestion in our cities a priority because we also recognise the important role efficient transport infrastructure plays in making our cities an easier place to live, a better place to do business and a healthier place to raise a family.

The Australian Government understands that in addition to improving the productivity and liveability of our cities, investing in Australia's road infrastructure has important safety benefits.

That is why as part of this package the Australian Government is more than doubling the funding available under the Black Spot program in 2008–09 by providing an additional \$60 million. This program has a proven record in saving lives and reducing the cost to the community of road trauma.

The Government is making substantial investments in the Hume Highway which is the principal road link between Sydney and Melbourne. The completion of the highway's duplication will be a welcome relief to motorists, offering increased safety as well as improved travel time.

Other major roads such as the Pacific Highway, the Princes Highway and the Northern Expressway are also benefiting from an early commitment of funds and play an important role in the development of a pipeline of infrastructure projects that are spread throughout the nation.

The Government's nation building agenda has taken on greater importance during these uncertain global economic times. By providing the private sector with a steady and clearly defined pipeline of projects industry is better placed to plan for the future. This will help maintain employment and build confidence in the business sector.

There is no doubt that investing in Australia's infrastructure will bring with it significant national benefits. A 21st century economy requires a modern and efficient transport network underpinning it.



ADDITIONAL FUNDING FOR THE BLACK SPOT PROGRAM IN 2008–09

What is this project?

Most Black Spot projects are at intersections with a poor safety record and often involve the installation of traffic signals, roundabouts, pedestrian facilities and street lights. Funds are also available for such works as shoulder sealing, line marking and crash barriers to improve safety on roads where crashes have occurred.

Why is this program important?

Black Spot projects reduce the risk of accidents at dangerous locations on our roads by targeting specific sites around Australia where there have been serious crashes or where serious crashes are likely.

Projects aim to address local concerns. Approximately 57 per cent of projects funded under the Program involve safety improvements on local roads.

The Program is an integral part of the National Road Safety Strategy, endorsed by all Australian transport ministers. The Strategy aims to reduce the number of road fatalities per 100,000 population by 40 per cent by 2010.

What is the Commonwealth Government investment?

The Australian Government is more than doubling Black Spot funding in 2008–09 with \$60 million in new funding.

What is the project timeline?

Funding will be available to be paid in 2008–09 on the proviso that it will be spent before the end of 2009 on new Black Spot projects. The Government will seek new project proposals for this funding.

Benefits of this project?

Evaluation of the Program found that it had achieved its aim of improving safety at locations with a history of crashes involving death or serious injury. In its first three years, the Program returned \$14 in benefits for every \$1 invested, and it is estimated to have prevented 32 fatalities and more than 1500 serious injuries. These benefits will continue to accrue over the life of the Program.

Each state and territory receives a share of the total funding under the Program, based on population and crash data. Additionally, approximately 50 per cent of Black Spot funds in each State (other than Tasmania, ACT and the NT) are reserved for projects in non-metropolitan areas. This ensures that crash locations in rural areas are treated.

Extra funding in 2008–09 is expected to deliver around 350 additional projects.

BULAHDELAH BYPASS (PACIFIC HIGHWAY, NSW)

What is this project?

An 8.6 kilometre long four lane divided bypass to the east of Bulahdelah will be constructed. This will replace the existing Pacific Highway from about 4.5 kilometres south of Bulahdelah northwards to the existing dual carriageway at Wootton Road, around three kilometres north of Bulahdelah. Features of the project include two grade-separated interchanges for access to Bulahdelah, one to the north and one to the south of town and twin bridges over the Myall River.

Why is this road project important?

The Pacific Highway is the principal road link between Sydney and Brisbane.

The Australian Government has committed \$2.45 billion to the vital task of upgrading the Highway in the period 2009–10 to 2013–14.

Along with other projects currently underway, the Bulahdelah Bypass will provide dual carriageway from Sydney to Port Macquarie.

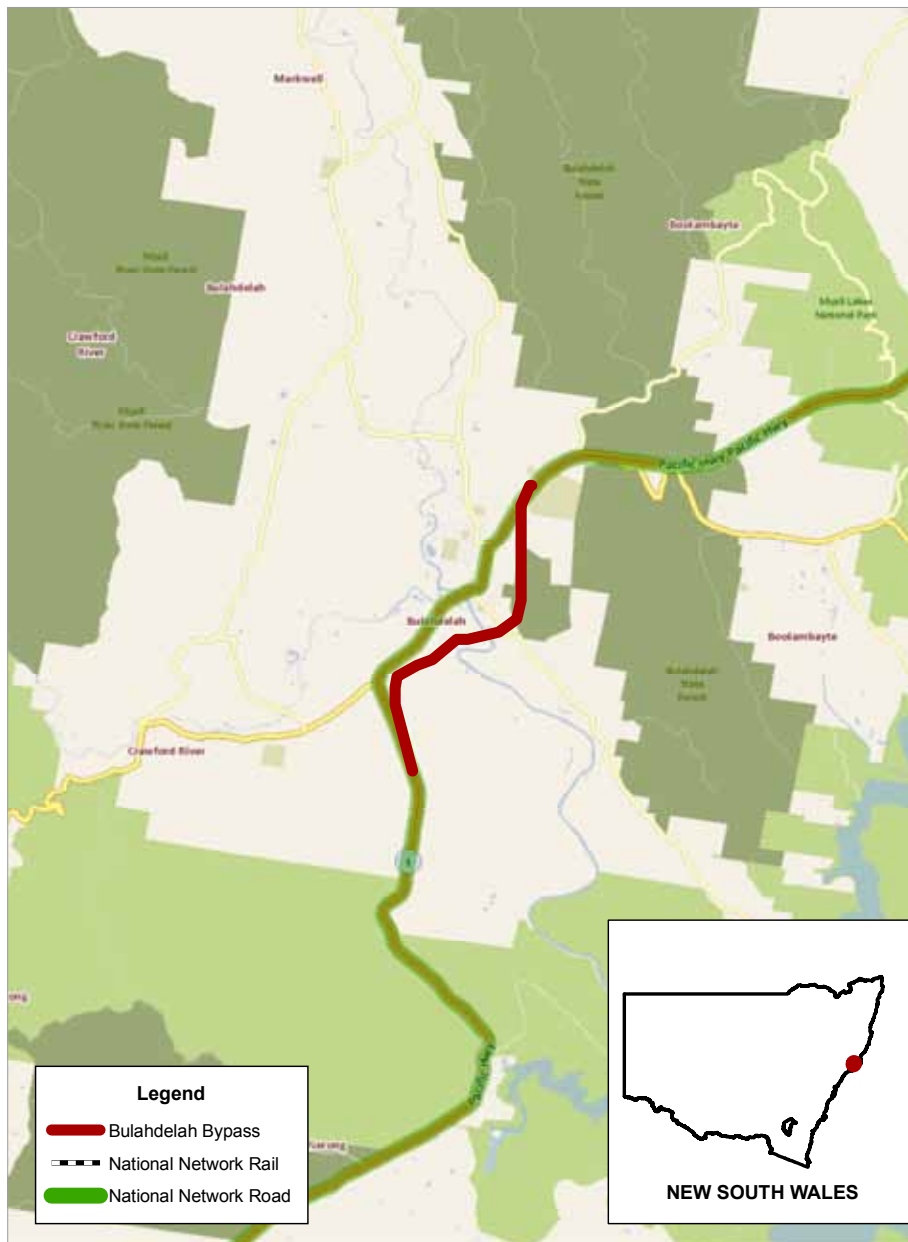
What is the Commonwealth Government investment?

The Australian Government has committed \$310 million to the Bulahdelah Bypass. An additional \$5 million has been brought forward into 2008–09 to advance work on the main part of the project.

What is the project timeline?

	Previous timeline	Revised timeline with funding bring forward
Commencement of construction	Early 2010	Late 2009
Completion of construction	Late 2012	Mid 2012

PACIFIC HIGHWAY – BULAHDELAH BYPASS



Benefits of this project?

At its peak, the project is expected to employ around 250 workers on-site.

Currently the Pacific Highway passes through Bulahdelah and divides the town. There is substantial conflict between local and through traffic with high levels of congestion at holiday times. This section of the Pacific Highway has experienced substantial growth in traffic volumes in recent years. Daily traffic volumes (2007) on the Highway on average were around 10,900 vehicles to the south of Bulahdelah and around 10,300 to the north of Bulahdelah. Of these, around 20 per cent were heavy vehicles.

This section of the Highway has a poor safety record with three fatal crashes and 24 injury crashes over the project length in the five year period 2003–07.

This project will provide an 8.6 kilometre bypass with divided carriageway. The upgrade is expected to save around 2.5 minutes of travel time in average traffic conditions and as much as one hour during holiday peaks. Overall, the Bulahdelah Bypass will improve road safety, reduce travel times and operating costs for road users and reduce highway maintenance costs. It will also improve safety and amenity for the Bulahdelah community.



PACIFIC HIGHWAY – SEXTONS HILL, BANORA POINT



BANORA POINT UPGRADE (PACIFIC HIGHWAY, NSW)

What is this project?

A 2.5 kilometre long, six lane motorway standard link between the existing Chinderah Bypass at the northern end of Barneys Point Bridge and the southern end of the Tweed Heads Bypass. The new road will be to the east of the current highway. Features of the project include a viaduct approximately 330 metres long across the deep valley south of Sextons Hill, and a land bridge approximately 100 metres wide to provide connection over the new road between east and west Banora Point at Wilson Park.

Why is this road project important?

The Pacific Highway is the principal road link between Sydney and Brisbane.

The Australian Government has committed \$2.45 billion to the vital task of upgrading the Highway in the period 2009–10 to 2013–14, including a commitment of \$210 million to an upgrade at Banora Point.

Together with other works underway, duplication of the Pacific Highway will be complete from the Queensland border to the south of Ballina.

What is the Commonwealth Government investment?

The Australian Government has committed \$210 million to upgrade works at Banora Point, with \$2 million being accelerated in 2008–09. Additional funding to complete the project is currently being discussed with New South Wales.

What is the project timeline?

	Previous timeline	Revised timeline with funding bring forward
Commencement of construction	Mid 2010	Late 2009
Completion of construction	Late 2012	Mid 2012

Benefits of this project?

At its peak, the project is expected to employ around 250 workers on-site.

The Pacific Highway at Sextons Hill, Banora Point is an urban arterial road. It has a high crash rate and through traffic conflicts with local traffic accessing the adjacent developing residential areas. There were three fatal crashes and 48 injury crashes over the project length in the five year period 2003–2007. Daily traffic volumes (2007) on the Highway range from around 45,000 vehicles north of Barneys Point Bridge to approximately 51,000 vehicles between Terranora Road and the Tweed Heads Bypass. Of this, around eight per cent are heavy vehicles.

By providing a 2.5 kilometre realignment outside the urban area, the upgrade project will improve the efficiency and safety of travel on the Pacific Highway. It will allow local traffic to move around Banora Point and South Tweed Heads without having to use the Highway. The proposed upgrade will provide travel time savings in the order of 5–10 minutes during morning peak hours. The upgrade will also reduce freight transport costs and provide a route that supports economic development.



TARCUTTA BYPASS



TARCUTTA BYPASS (HUME HIGHWAY, NSW)

What is this project?

A four lane divided highway bypass of the village of Tarcutta from the existing two lane highway approximately four kilometres to the north to the existing four lane divided highway approximately three kilometres to the south.

Why is this road project important?

The Hume Highway is the principal road link between Melbourne and Sydney.

Substantial work is currently underway on duplication of the Hume Highway. When this work is completed by the end of 2009, only construction of the Woomargama, Holbrook and Tarcutta bypasses (a total of 20 kilometres) will remain to complete duplication between Melbourne and Sydney.

The Government has committed to building the three bypasses by 2012.

This project, and a complementary project to build the Woomargama Bypass, will enable two of the bypasses to be completed by late 2011.

What is the Commonwealth Government investment?

An advance payment of \$225 million will be provided to New South Wales in 2008–09 to accelerate construction of the project.

What is the project timeline?

	Previous timeline	Revised timeline with funding bring forward
Commencement of construction	Early 2010	Late 2009
Completion of construction	Mid 2012	Late 2011

Benefits of this project?

At its peak, the project is expected to employ around 350 workers on-site.

The current Hume Highway through Tarcutta has traffic volumes of 4,470 per day (2006) including around 45 per cent heavy vehicles. The high proportion of heavy vehicles at night substantially reduces the effective capacity of the current single carriageway. This section through Tarcutta also has an unsatisfactory safety record with 12 crashes in the past five years.

This project will provide a duplicated bypass of 6.8 kilometre section and remove the 50 kilometre per hour speed restriction that currently applies through Tarcutta. This will improve safety, provide travel time savings of around three minutes and provide a reduction in vehicle operating costs.



WOOMARGAMA BYPASS



WOOMARGAMA BYPASS (HUME HIGHWAY, NSW)

What is this project?

A four lane divided highway bypass of the village of Woomargama from existing four lane divided highway approximately seven kilometres to the north to the existing highway near Fairburn Road approximately three kilometres to the south. The existing two lane highway south of Fairburn Road is currently being upgraded as part of the accelerated Southern Hume duplication package – Woomargama to Table Top section.

Why is this road project important?

The Hume Highway is the principal road link between Melbourne and Sydney.

Substantial work is currently underway on duplication of the Hume Highway. When this work is completed by the end of 2009, only construction of the Woomargama, Holbrook and Tarcutta bypasses (a total of 20 kilometres) will remain to complete duplication between Melbourne and Sydney.

The Government has committed to building the three bypasses by 2012.

This project, and a complementary project to build the Tarcutta Bypass, will enable two of the bypasses to be completed by late 2011.

What is the Commonwealth Government investment?

\$265 million will be provided to New South Wales to accelerate construction of the project, comprising advance payments of \$9 million in 2008–09 and \$256 million in 2009–10.

What is the project timeline?

	Previous timeline	Revised timeline with funding bring forward
Commencement of construction	Early 2010	Late 2009
Completion of construction	Mid 2012	Late 2011

Benefits of this project?

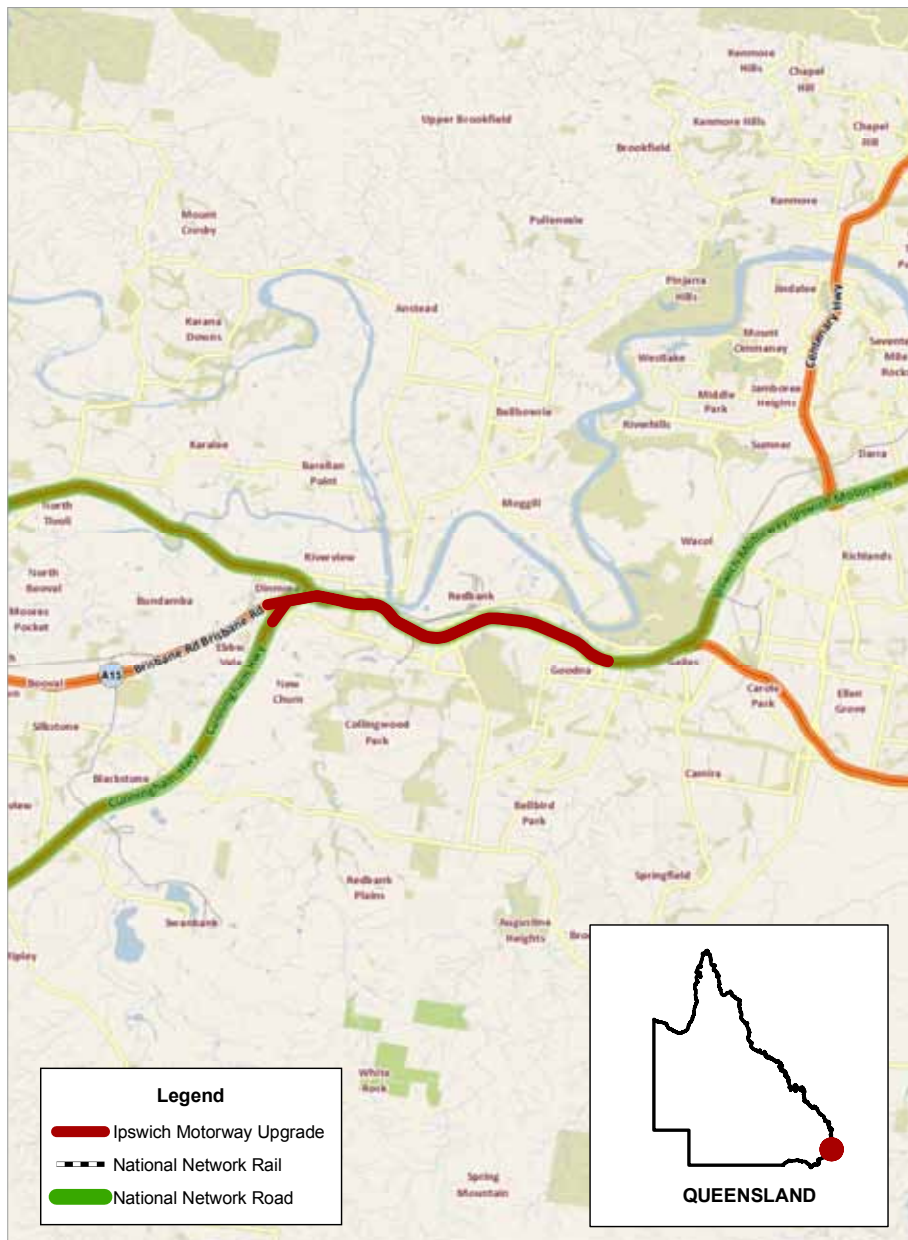
At its peak, the project is expected to employ around 350 workers on-site.

The current Hume Highway near Woomargama has traffic volumes of 4,900 per day (2006) including around 40 per cent heavy vehicles. The crash statistics for this section indicate a high number of fatigue related, multi vehicle crashes with eight recorded in the five year period 2002–2006. This also indicates that Woomargama is in a fatigue zone.

This project will provide a duplicated bypass of 8.9 kilometres (1.5 kilometres shorter than the current route of the road through Woomargama) and remove a 70 kilometre per hour speed restriction across a one kilometre length. This will improve safety and provide travel time savings.



IPSWICH MOTORWAY – DINMORE TO GOODNA



IPSWICH MOTORWAY – DINMORE TO GOODNA (QLD)

What is this project?

This project will upgrade eight kilometres of the Ipswich Motorway and will include constructing additional traffic lanes, widening existing lanes and improving interchanges.

Why is this project important?

The Australian Government committed \$1.14 billion to upgrade the Ipswich Motorway between Dinmore to Goodna from four to six lanes. The Ipswich Motorway serves Brisbane's south west industrial and transport hub. Seventy per cent of all Brisbane's road and rail freight is destined for the Wacol-Rocklea-Acacia Ridge area, south west of the city. The mainly four-lane motorway carries more than 80,000 vehicles a day. Traffic is congested in peak periods, and vehicle numbers are expected to grow as the Ipswich region becomes home to 800,000 people under the Queensland Government strategy for the development of South East Queensland. The Motorway has an unsatisfactory crash history with 649 crashes of which 226 resulted in injury and two fatalities over the five year period to June 2006.

What is the Commonwealth Government investment?

The Government has committed \$1.14 billion to the project. This package accelerates \$25 million of this funding into 2008–09 bringing the total available this financial year to \$30 million.

What is the project timeline?

	Previous timeline	Revised timeline with funding bring forward*
Commencement of construction	Early 2009	Early 2009
Completion of construction	Late 2012	Late 2012

* This project has already been accelerated, but this additional funding is critical to ensure it remains on track.

Benefits of this project?

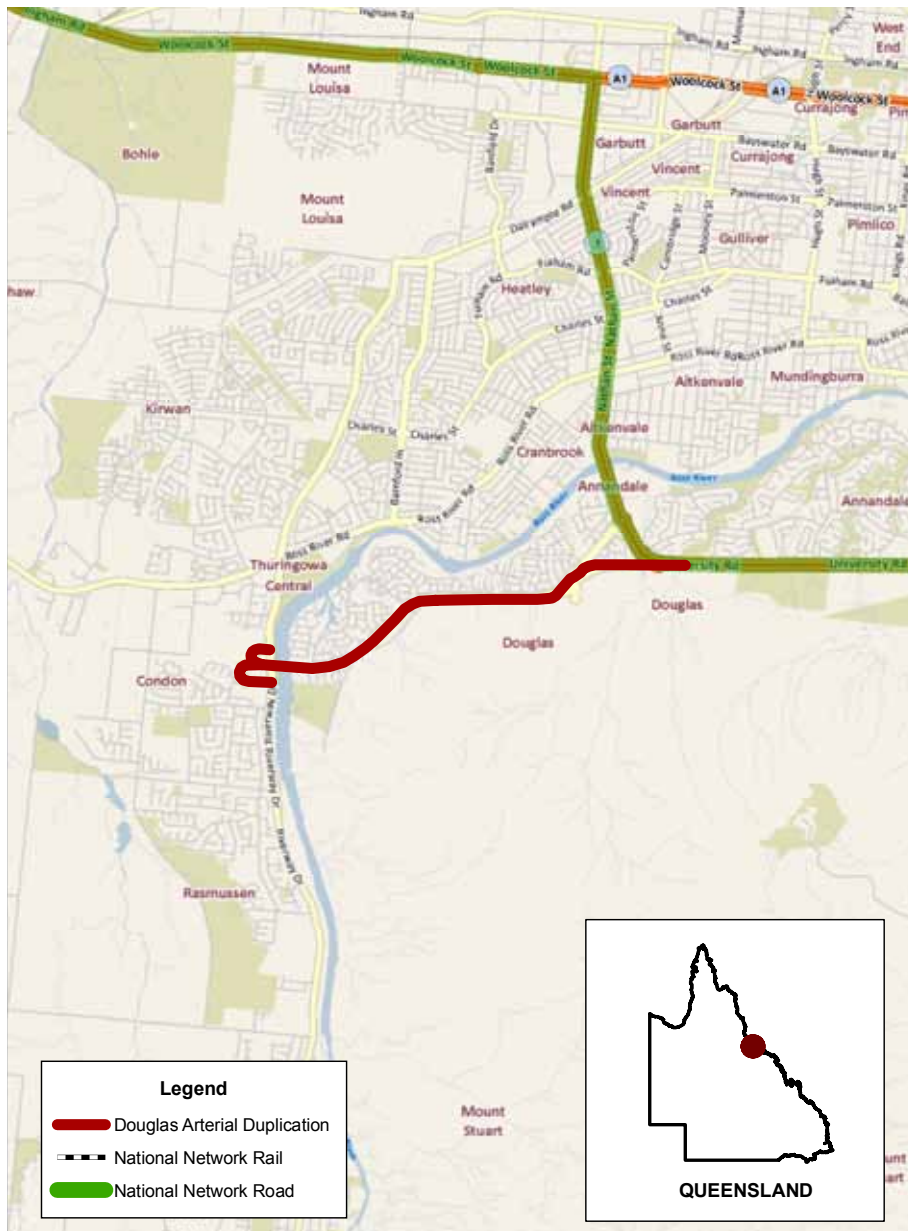
This project will employ more than 300 people at the site office with about 1,000 construction staff on the Motorway over the next four years.

This project will improve safety for users and reduce congestion.

The upgrade will address safety issues by providing an improved alignment and by separating local and long distance traffic through the removal of some access ramps and the addition of service roads.



BRUCE HIGHWAY – DOUGLAS ARTERIAL ROAD



DUPLICATION OF THE DOUGLAS ARTERIAL ROAD – TOWNSVILLE (QLD)

What is this project?

The project will duplicate the existing two lane Douglas Arterial Road to a four lane motorway standard. The total road length is 5.3 kilometres with improvements including duplicated bridges over University Creek and the Ross River together with upgraded interchanges at Discovery Drive and Angus Smith Drive and construction of a second carriage way.

Why is this project important?

The Douglas Arterial Road, which is already at capacity and heavily congested during peak periods, forms part of the Townsville Ring Road. The upgrade will improve safety, reduce congestion and provide more opportunities for overtaking. It will result in reduced travelling times and transport costs by removing traffic and heavy vehicles from the current highway route through the centre of Townsville. Since October 2005 through to April 2008 there were 13 crashes on this section of the road. Current traffic volumes are in the order of 17,000 annual average daily traffic with four per cent heavy vehicles.

What is the Commonwealth Government investment?

The Australian Government has committed \$55 million to the project, with \$20 million being allocated in 2008–09.

What is the project timeline?

	Previous timeline	Revised timeline with funding bring forward
Commencement of construction	Early 2010	Mid 2009
Completion of construction	Mid 2013	Late 2012

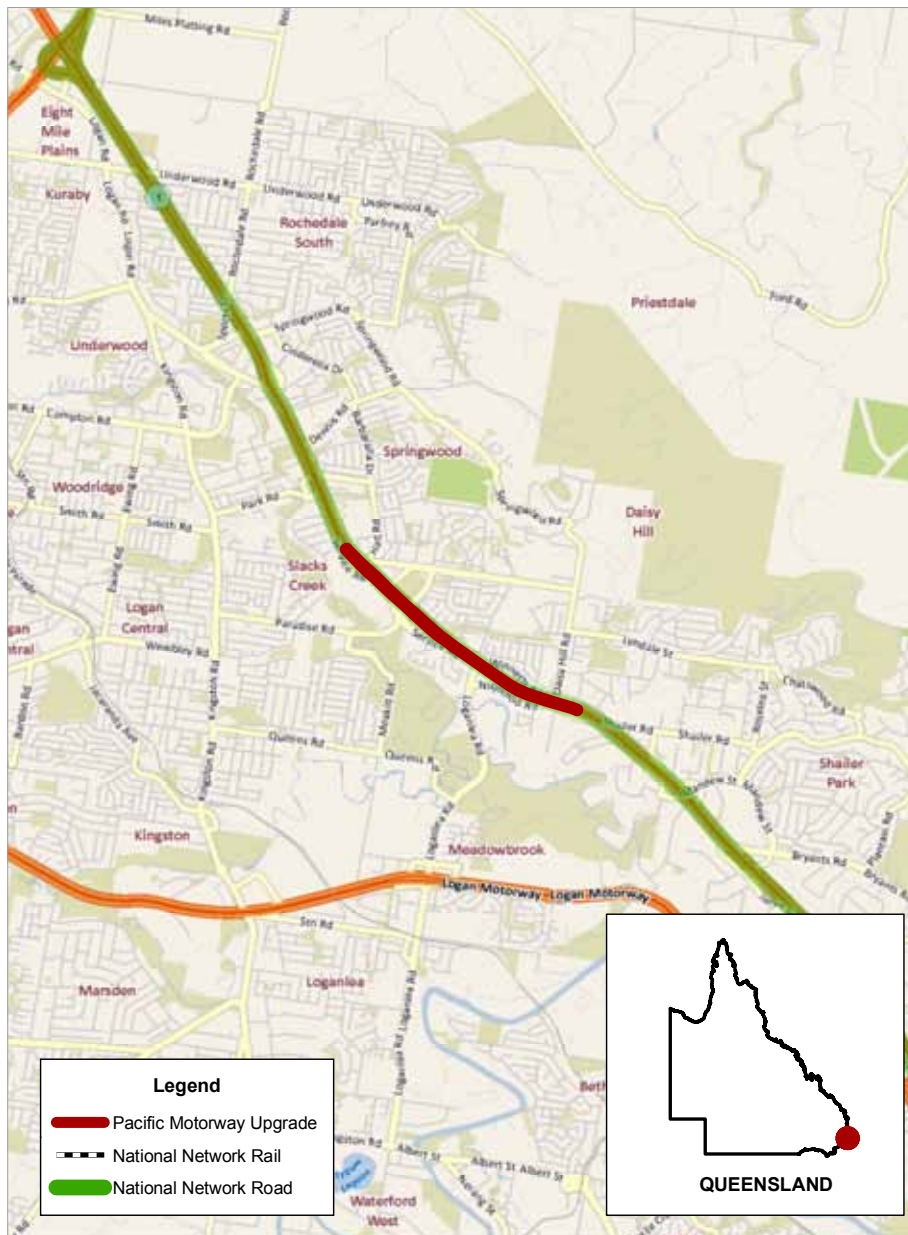
Benefits of this project?

At its peak, the project is expected to employ up to 200 workers on-site.

This project will provide improved safety and overtaking opportunities and reduced congestion. It will also reduce travel times and transport costs by removing the majority of through traffic and heavy vehicles from the current highway route through the centre of Townsville.



PACIFIC MOTORWAY – SPRINGWOOD SOUTH TO DAISY HILL



PACIFIC MOTORWAY TRANSIT PROJECT (SECTION B) – SPRINGWOOD SOUTH TO DAISY HILL (QLD)

What is this project?

This project will upgrade the Pacific Motorway from Springwood South to Daisy Hill, including the Loganlea Road Interchange. The project will provide two new transit lanes, connections to two new bus lanes and is approximately three kilometres in length.

Why is this project important?

The Springwood South to Daisy Hill forms part of the Pacific Motorway Transit project. The works will enhance the motorway's dual role as an important interstate corridor and a commuter traffic route and help meet the transport needs of south east Queensland for the next 30 years. The motorway has a poor crash history with 148 crashes over five years with one fatality. Current traffic volume is 140,000 annual average daily traffic with 8.4 per cent commercial vehicles.

What is the total investment?

The Australian Government has committed \$200 million to the project, with \$2.5 million being allocated in 2008–09.

This project is part of the Australian Government \$455 million commitment towards the \$910 million jointly funded upgrade to the Pacific Motorway.

What is the project timeline?

	Previous timeline	Revised timeline with funding bring forward*
Commencement of construction	Early 2009	Early 2009
Completion of construction	Late 2010	Late 2010

* This project has already been accelerated, but this additional funding is critical to ensure it remains on track.

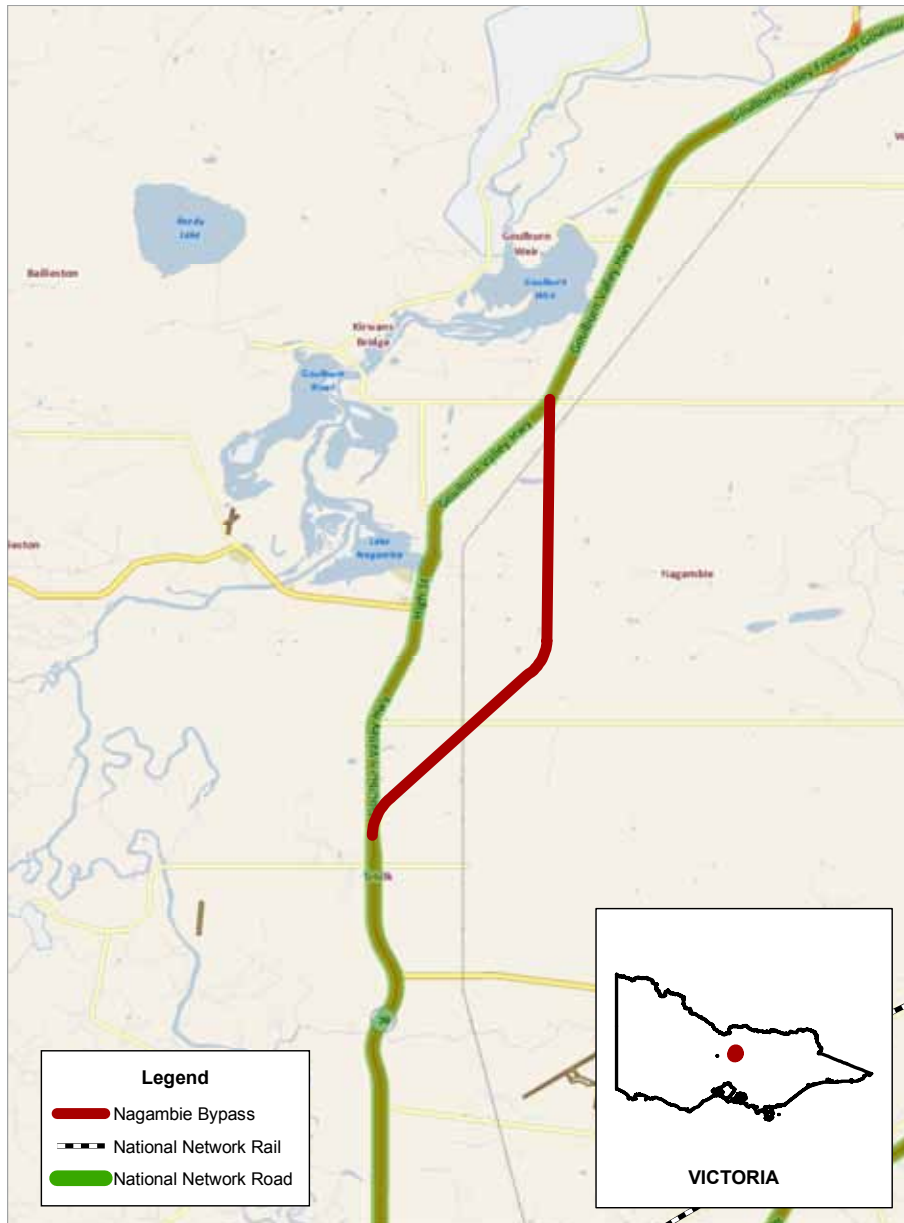
Benefits of this project?

At its peak, the project is expected to employ up to 500 workers on-site.

This project will improve safety, transport efficiency and will also reduce congestion.



GOULBURN VALLEY HIGHWAY – NAGAMBIE BYPASS



NAGAMBIE BYPASS, GOULBURN VALLEY HIGHWAY (VICTORIA)

What is this project?

The 17 kilometre long Nagambie Bypass will involve the construction of a new 13.5 kilometre freeway-standard highway to the east of the Nagambie and duplication of 3.5 kilometres of the existing Goulburn Valley Highway between Kirwans Bridge – Longwood Road and Weir Road, including access roads. An interchange at Mitchellstown Road with a bridge over the Bypass and freeway ramps will provide full access in all directions. Bridges will take the freeway over the Goulburn Valley rail line at two locations, Ballantynes Road over the Bypass, and a freeway overpass of Racecourse Road. Intersections will provide access at Kirwans Bridge-Longwood Road and Nagambie-Locksley Road and noise protection will be constructed for adjacent properties as required.

Why is this project important?

The Nagambie Bypass is the next stage in the upgrade of the Goulburn Valley Highway, a vital transport route connecting the rich fruit and vegetable growing industries in the Goulburn Valley with Melbourne. It forms part of the national network between Melbourne and Brisbane. Currently 7,500 vehicles per day including 21 per cent trucks and other commercial vehicles pass through Nagambie. From 2000 to 2004 there were 22 crashes along this section of the Goulburn Valley Highway, and eight of these resulted in serious injury. An interchange at Mitchellstown Road with a bridge over the Bypass and freeway ramps will provide full access in all directions. Bridges will take the freeway over the Goulburn Valley rail line at two locations, Ballantynes Road over the Bypass, and a freeway overpass of Racecourse Road. Intersections will provide access at Kirwans Bridge-Longwood Road and Nagambie-Locksley Road and noise protection will be constructed for adjacent properties as required.

What is the total investment?

The total project cost is estimated at \$270 million. The Australian Government has committed \$216 million to the project with \$3 million being accelerated in 2008–09.

What is the project timeline?

	Previous timeline	Revised timeline with funding bring forward
Commencement of construction	Late 2009	March 2009
Completion of construction	Early 2013	Mid 2012

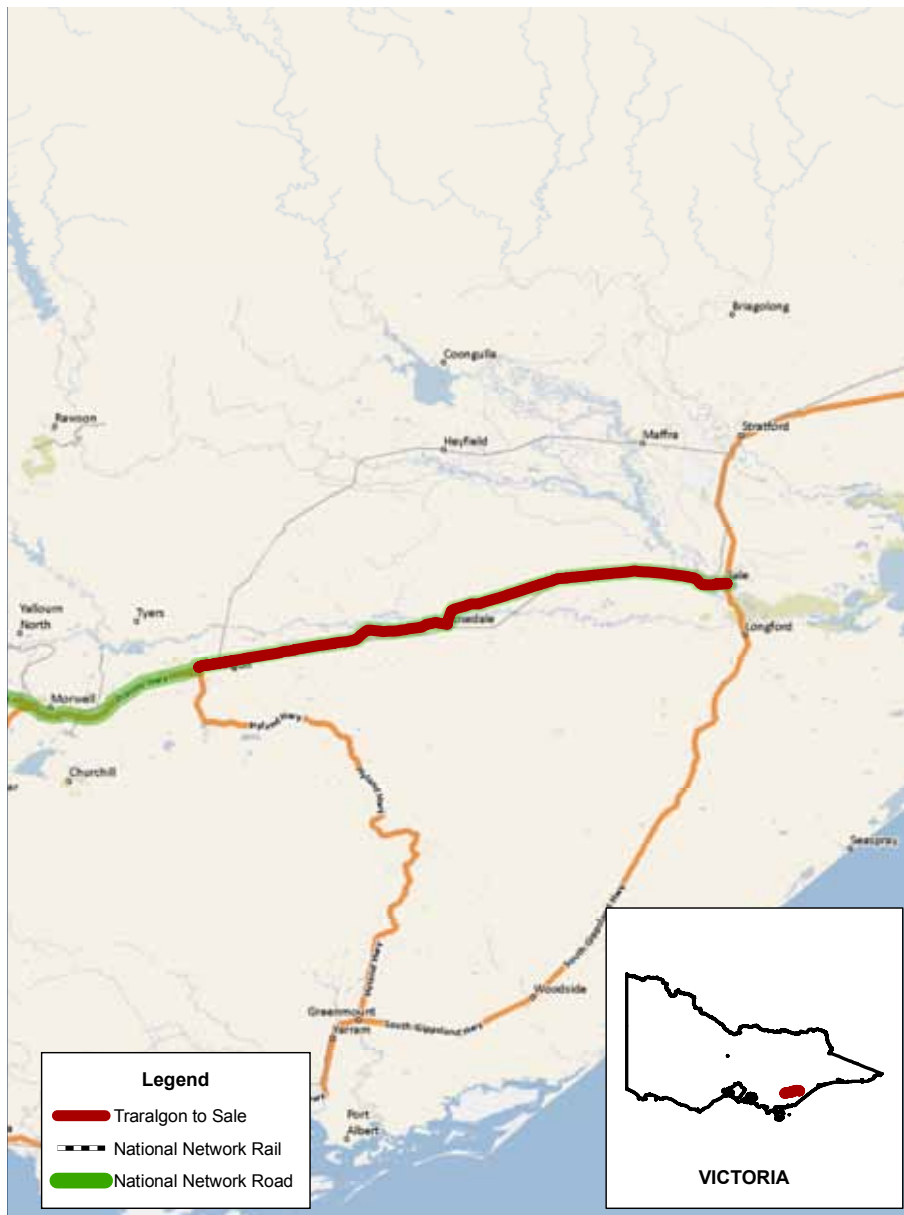
Benefits of this project?

At its peak, the project is expected to employ up to 600 workers on-site.

The Nagambie Bypass will reduce travel times, improve traffic flow and improve reliability. This project will also reduce the time it takes to transport produce from the Goulburn Valley and Riverina to Shepparton for processing and subsequently to domestic markets and export markets via the Port of Melbourne. The Nagambie Bypass will reduce through traffic in Nagambie, thereby improving safety and local amenity.



PRINCES HIGHWAY – TRARALGON TO SALE



PRINCES HIGHWAY EAST – TRARALGON TO SALE DUPLICATION (VICTORIA)

What is this project?

The duplication involves widening the Princes Highway between Traralgon and Sale to provide two lanes in each direction and by making it a four lane, two carriageway freeway which will cover road works over approximately 44 kilometres in total.

Why is this project important?

Princess Highway East is the primary connection between Gippsland, Melbourne and the Port of Melbourne. It acts as the main freight route for products destined for export via the ports of Melbourne, Hastings and Geelong.

The Traralgon to Sale section of the Princess Highway supports agriculture, timber paper, dairy, gas and service industries, as well as the RAAF base at Sale. The overall size of the freight task on the Princess Highway in Gippsland is estimated to be around 6 million tonnes. 10,000 vehicles travel this section daily, rising to 14,000 vehicles per day in peak periods.

Between 2000 and 2004 there were 26 crashes between Traralgon and Rosedale (one fatality and 16 serious injuries) and 55 crashes between Rosedale and Sale (four fatalities and 15 serious injuries).

What is the Commonwealth Government investment?

The Australian Government has committed \$140 million to start duplicating the Princes Highway East – Traralgon to Sale with \$2.5 million being accelerated in 2008–09.

What is the project timeline?

	Previous timeline	Revised timeline with funding bring forward
Commencement of construction	Mid 2010	March 2009
Completion of construction	Mid 2014	Early 2014

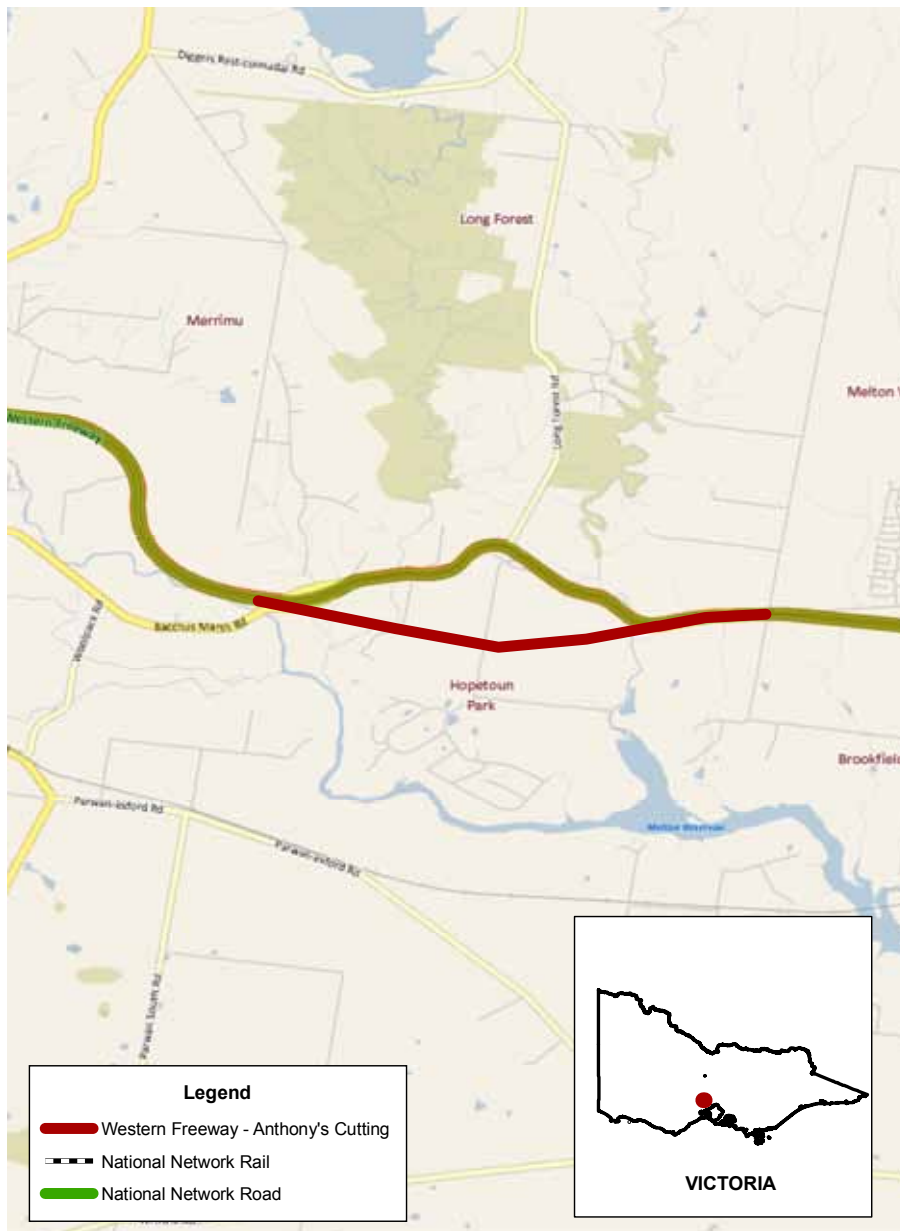
Benefits of this project?

At its peak, the project is expected to employ up to 360 workers on-site.

A duplicated highway between Traralgon and Sale will improve safety and help reduce damage to fresh produce from the region travelling to Melbourne markets. The duplication would significantly boost road freight capacity, reduce transit times and improve traffic flows. The duplication will also reduce the number and severity of accidents, allow safer overtaking, improve amenities and make travel on the highway more reliable.



WESTERN HIGHWAY – ANTHONYS CUTTING



WESTERN HIGHWAY – ANTHONYS CUTTING REALIGNMENT (VICTORIA)

What is this project?

This project involves construction of a four-lane dual carriageway on a new alignment approximately five kilometres in length between Harkness Road West Melton and Bacchus Marsh. The works will include construction of bridge structures; a full diamond interchange with ramps (subject to review); overpasses; and upgraded local access roads. These works will also remove at grade intersections along this section of highway.

Why is this project important?

The Western Highway is the National Network link between Melbourne and Ballarat. Currently traffic volumes are approximately 28,000 vehicles per day between Melton and Bacchus Marsh. However, speed restrictions and safety problems caused by poor alignment at Djerriwarrh Creek and Anthonys Cutting between Melton and Bacchus Marsh reduce the highway's efficiency. This 4.5 kilometre section of highway has steep grades, tight curves, carries high traffic volumes and has a high crash rate.

This section of highway had 21 casualty crashes recorded over the five year period 2003–08 with 11 resulting in serious injuries. Fifteen were run off road crashes being more than double the State average.

What is the total investment?

The total project cost is estimated at \$200 million. The Australian Government has committed \$160 million with \$6 million being accelerated in 2008–09.

What is the project timeline?

	Previous timeline	Revised timeline with funding bring forward
Commencement of construction	Late 2009	March 2009
Completion of construction	Mid 2012	Early 2012

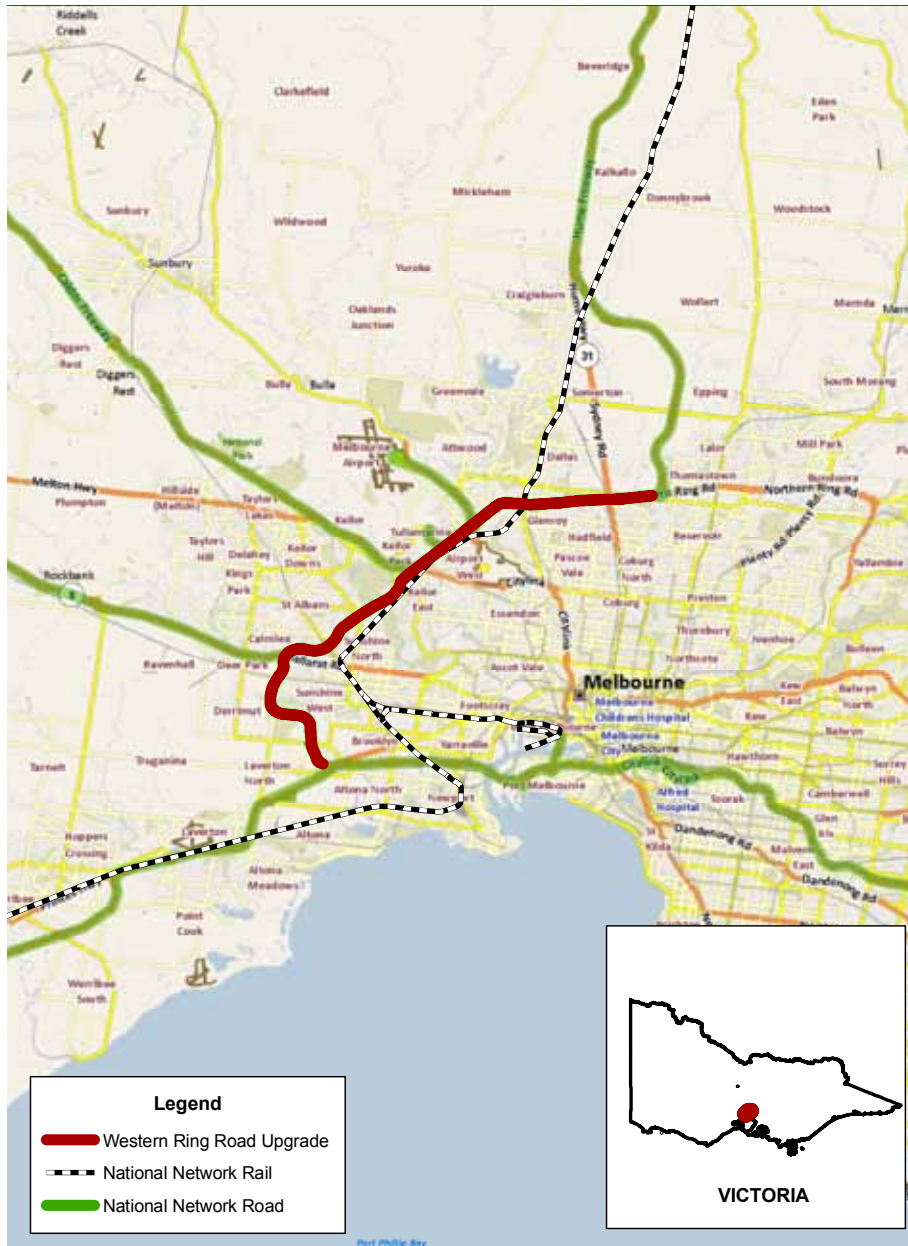
Benefits of this project?

At its peak, the project is expected to employ up to 510 workers on-site.

This project will improve safety along this section of the Western Highway, reducing the incidence of crashes and their associated economic and social costs. The project also eliminates the need for speed restrictions and reduces travelling time and transport costs by effectively bypassing Anthonys Cutting.



WESTERN RING ROAD UPGRADE



WESTERN RING ROAD UPGRADE AND CAPACITY IMPROVEMENT (VICTORIA)

What is this project?

The proposed works include extra lanes and enhanced traffic management systems (such as ramp metering) to reduce traffic congestion and crashes, improve traffic flow and reliability, boost freight carrying capacity and improve travel times.

Why is this project important?

Melbourne's Western Ring Road links with the Melbourne to Sydney, Mildura, Adelaide, and Geelong Corridors. The 38 kilometre Western Ring Road carries between 105,000 and 142,000 vehicles per day, with up to 16 per cent freight vehicles. Capacity is exceeded during peak periods, with traffic speeds as low as 20 to 30 kilometres per hour leading to further flow breakdown, resulting in delays and longer periods of congestion. In the five years prior to October 2007 there were more than 750 casualty crashes along the Western Ring Road, including 9 deaths and over 270 serious injuries.

What is the total investment?

The total project cost is estimated at \$1.2 billion and the Australian Government has committed \$900 million to this project with \$15 million being accelerated in 2008–09.

What is the project timeline?

	Previous timeline	Revised timeline with funding bring forward
Commencement of construction	Mid 2009	Immediate
Completion of construction	Mid 2014	Early 2014

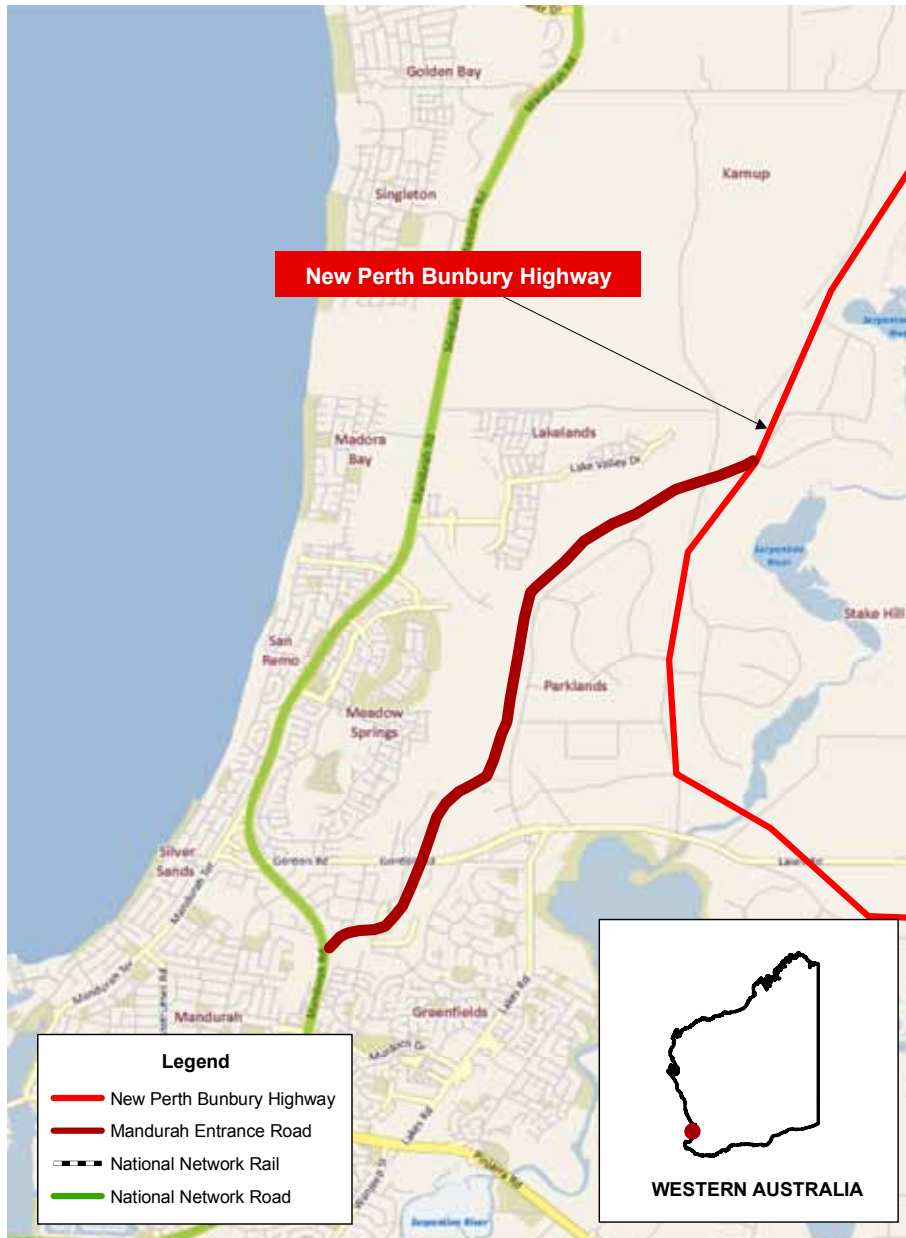
Benefits of this project?

At its peak, the project will employ up to 1,800 workers on-site.

The project will reduce traffic congestion and crashes, improve traffic flow and reliability, boost freight carrying capacity and improve travel times. Treatments will also be considered at interchanges to address the issues of weaving and merging of traffic, which will improve road safety and traffic flow.



MANDURAH ENTRANCE ROAD



MANDURAH ENTRANCE ROAD (WESTERN AUSTRALIA)

What is this project?

The seven kilometre Mandurah Entrance Road project involves construction of a new dual carriageway and associated intersections between the New Perth Bunbury Highway and Mandurah. It also involves the construction of a diamond type interchange which will connect the entrance road to the New Perth Bunbury Highway.

Why is this road project important?

The Mandurah Entrance Road will be the main link between the New Perth Bunbury Highway, which will be completed in 2009, and the City of Mandurah which is in one of the fastest growing regions in Australia. Currently, there is no suitable road link between Mandurah and the highway that will cater for the expected increase in traffic volume from 2009. Without construction of the Mandurah Entrance Road, regional traffic will use local roads between the New Perth Bunbury Highway and Mandurah, increasing traffic congestion and adversely affecting road safety. This is particularly the case on Lakes Road which contains residential housing, schools and a hospital. Existing local roads such as Lakes Road and Gordon Road, and intersections including Gordon Road/Mandurah Road and Pinjarra Road/Mandurah Road would also require significant upgrading to cater for the anticipated growth in traffic if the entrance road was not built.

What is the total investment?

The total project cost is estimated to be \$130 million. The Australian Government has committed \$65 million to the project with \$16.5 million being accelerated into 2008–09.

What is the project timeline?

	Previous timeline	Revised timeline with funding bring forward
Commencement of construction	Mid 2010	Mid 2009
Completion of construction	Mid 2013	Mid 2010

Benefits of this project?

At its peak of construction, the project is expected to directly employ up to 80 workers.

The Mandurah Entrance Road will provide a safe and efficient link between the New Perth Bunbury Highway and Mandurah. It is expected to carry up to 11,000 vehicles per day, most of which would have otherwise ended up on local and arterial roads such as Lakes and Gordon Roads after the opening of the New Perth Bunbury Highway in 2009. It will also ensure that the crash rates at intersections such as Gordon Road/Mandurah Road, which recorded 215 crashes between 2002 and 2007 and Pinjarra Road/Mandurah Road which recorded 207 crashes in the same period, do not escalate after the new Highway opens in 2009. The new road will be only half the length of the existing routes and will save on travel times between Mandurah and the New Perth Bunbury Highway.



NORTHERN EXPRESSWAY



NORTHERN EXPRESSWAY (SOUTH AUSTRALIA)

What is this project?

The Northern Expressway involves construction of a new 22 kilometre four-lane freeway between Gawler and Port Wakefield Road and the upgrade of an 11 kilometre section of Port Wakefield Road to the Salisbury Highway.

Why is this road project important?

The Northern Expressway will provide a new northern road link into Adelaide from the Sturt Highway north of Gawler to the Port of Adelaide, via the Port River Expressway. The new road will significantly reduce travel times and operating costs for freight vehicles travelling from key areas such as the Barossa Valley and the Riverland as it will bypass the existing congested route through Main North Road and Angle Vale and Heaslip Roads. The Northern Expressway will also meet future demands from commuters from the expanding northern suburbs of Adelaide.

What is the total investment?

The total project cost is estimated to be \$564 million. The Australian Government has committed \$451.2 million. This acceleration will involve an additional allocation of \$36.9 million in 2009–10 in addition to the \$60 million of early start funding already brought forward for this project in the 2008–09 Budget.

What is the project timeline?

	Previous timeline	Revised timeline with funding bring forward
Commencement of construction	Early 2008	Early 2008
Completion of construction	December 2010	September 2010

Benefits of this project?

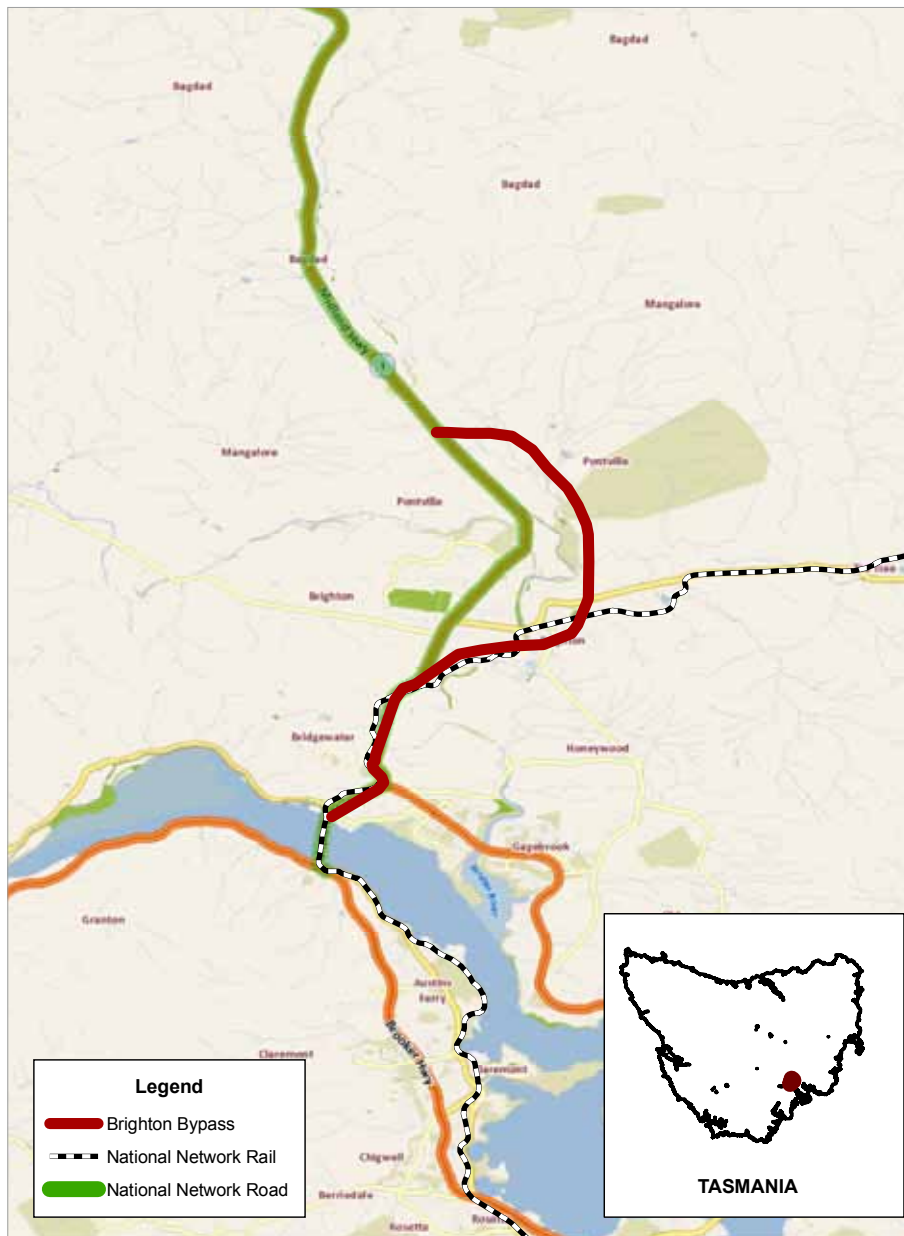
At the peak of construction, this project is expected to directly employ up to 350 workers.

Completion of the Northern Expressway will result in travel time savings of up to 20 minutes between Gawler and Port Adelaide compared with the existing route via Main North Road. It will allow road users to bypass 22 sets of traffic lights between Gawler and Gepps Cross and avoid the congested Main North Road where traffic volumes in excess of 30, 000 vehicles per day have been recorded. It is expected that about 40,000 vehicles per day will travel on the Northern Expressway in the coming years.

When completed, the Northern Expressway will draw a significant volume of traffic away from existing arterial and local roads such as Main North Road and Angle Vale and Heaslip roads. This reduction in traffic on adjacent roads is expected to significantly reduce crash rates and result in crash cost savings of \$74 million over a 30 year period for these three roads alone. In the period 2003–2007 there were 19 fatal, 97 serious and 876 minor accidents on Main North Road and Angle Vale and Heaslip roads.



MIDLAND HIGHWAY – BRIGHTON BYPASS



BRIGHTON BYPASS, MIDLAND HIGHWAY (TASMANIA)

What is this project?

The Brighton Bypass will involve the construction of a new alignment for the Midland Highway to bypass Brighton to the east. The project is approximately 9.5 kilometre dual carriageway with 110 kilometre per hour design speed. It includes grade separated interchanges at South Brighton and Tea Tree Road and will facilitate access to the proposed Brighton Transport Hub. It will also involve a minor realignment of the main rail line and a crossing of the Jordan River.

Why is this project important?

The Midland Highway is the main highway linking Hobart to northern Tasmania including Launceston, Burnie, Devonport and Bell Bay. The Highway through Brighton and Pontville is a two-lane single carriageway road carrying over 15,000 vehicles per day including 10.5 per cent heavy vehicles. Speed limits of 60 and 50 kilometres per hour apply through Pontville and Brighton respectively. The Highway has a poor crash history, recording 59 crashes, including 15 injury and two fatal accidents, over the past five years. Fourteen of these crashes occurred at the intersection with Tea Tree Road (Andrew Street, Brighton) which is the main connecting road to the east coast.

What is the total investment?

The Australian Government has committed \$164 million to this project with \$12.4 million being accelerated in 2008–09.

What is the project timeline?

	Previous timeline	Revised timeline with funding bring forward
Commencement of construction	Late 2009	March 2009
Completion of construction	Early 2013	Mid 2012

Benefits of this project?

At peak, the project is expected to employ up to 380 workers on-site.

The Brighton Bypass will improve safety, reduce travel times and improve efficiency for all freight and passenger traffic. The project will also improve access, safety and amenity in Brighton and Pontville through the removal of highway traffic from the town centre.

The development of the proposed Brighton Transport Hub will see a greater concentration of commercial and industrial activity in this area.



Nation Building

Rail, Road, Education & Research and Business

EAST KIMBERLEY DEVELOPMENT PACKAGE: EXPANDING THE ORD

What is this project?

The Western Australian (WA) Government will be investing in the expansion of the irrigated agricultural land around Kununurra. The project will double the available irrigated development area from 14,000 to 28,000 hectares to provide possible large scale expansion of agriculture. Potential crops include sugar, rice, cotton, sandalwood and high value timbers.

Why is this project important?

This investment will provide long-term social and economic benefit through developing the region's economic base. The largely immobile East Kimberley Indigenous community faces extreme levels of unemployment and considerable social difficulties. There are serious deficiencies in the available social and community amenities and services.

What is the total investment?

The Commonwealth is prepared to contribute a total of \$195 million over 2008–09 and 2009–10 to support economic development in the East Kimberley region through investment in social and common use infrastructure (roads, ports, power).

The Commonwealth's contribution will be matched by the WA Government and is conditional on a joint assessment by the Commonwealth and WA Governments of the most effective infrastructure investments to meet the social and economic development needs of the region.

The Commonwealth's participation in the joint assessment will be led by the Office of Northern Australia, under the Parliamentary Secretary for Regional Development and Northern Australia, the Hon Gary Gray AO MP, and will include representatives of the Department of the Prime Minister and Cabinet and other Commonwealth departments.

The assessment group will report to Governments in March 2009.

What is the project timeline?

Subject to the assessment, initial funding could be provided to the WA Government in 2008–09.

Benefits of this project?

The project will have many benefits, including:

- Provide infrastructure to support continued sustainable growth in the region and improve productivity;
- Provide work training and productive employment opportunities for the Indigenous community; and
- Investment in much needed social infrastructure such as schools, hospitals and early childhood facilities to improve the community's access to social services.



CHAPTER 4: Education and Research





4. EDUCATION AND RESEARCH

Investing in the education, skills and training of our young people and our workforce is the best way to enhance the life chances of individual Australians and boost the productivity and prosperity of our nation. World leading infrastructure is critical to world leading tertiary education and research.

Australia's tertiary education and research sectors are in need of a capital injection.

Commitment to education

The Government is committed to an Education Revolution at every level of Australia's education system from early childhood to post secondary education.

We have committed almost \$1 billion to reform of early childhood education and care including the funding in partnership with State and Territory Governments of fifteen hours a week of early learning for all four year olds.

The Government has made substantial investments to improve the quality of our schooling system and quantitative improvements through major capital investments. We are investing:

- \$2 billion over five years to provide computers for all students in years 9 to 12 in every school; and
- \$2.5 billion over the next decade in state of art Trades Training Centres

Through COAG we have agreed a new National Schools Agreement which promotes transparency and performance and will introduce a national curriculum in the core subjects of English, Maths, the Sciences and History. We have agreed three new reform partnerships with State and Territory Governments to boost teacher quality (\$550 million), literacy and numeracy (\$540 million) and provide extra resources to 1500 low Socio-Economic Status schools (\$1.1 billion).

Together, these new investments in our schooling systems total an estimated \$58.6 billion over the next five years – an increase of more than \$13 billion or 29.2 per cent over that provided by the previous Government.

We have also made a substantial investment in post secondary education.

In the area of skills we have committed to fund an additional 701,000 vocational training places over five years to increase the qualifications of both the existing workforce and of those who are currently looking for jobs.

And in the recent Federal Budget we recognised the importance of addressing a decade of neglect of university infrastructure and services by providing \$500 million for the Better Universities Renewal Fund.

Higher education

The Government has made it a national priority to create a world-leading higher education system for Australia. The discussion paper prepared for the Review of Australian Higher Education identified that infrastructure and resources in higher education, have been under increasing pressure for some time due to the rapid expansion in the scale and complexity of their operations.

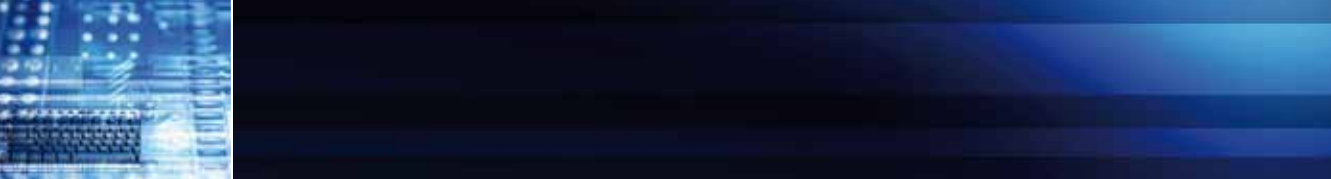
These investments show a genuine commitment to assisting institutions achieve their distinctive missions and promoting a diverse, globally focused higher education sector. This funding recognises and enhances the role of higher education in contributing to national productivity and increased participation in the labour market.

The teaching, learning and research spaces of Australia's universities will be improved so that they are physically and technologically appropriate for 21st century approaches to tertiary education. The cumulative effect of these projects will be the transformation of teaching, learning and research spaces across the country in a way that responds to the areas of demand.

Vocational education and training

The Government is committed to lifting workforce participation and productivity in Australia – allowing the Australian economy to continue to expand and deliver prosperity to future generations of Australians. This package represents an added timely investment in training and skills today to prevent a major constraint in the future on the capacity of industry to keep pace with increasing demand and intensifying international competition.

Consistent with this agenda, these investments aspire to modernise and improve the quality of courses giving Australians the depth and breadth of skills they need for a 21st century economy; overcome the shortages for skilled employees in various areas and re-tool and train the Australian VET workforce to build capacity in emerging skill areas; assist individuals to overcome barriers to education, training and employment, and motivate them to acquire and utilise new skills; update TAFE and other VET infrastructure and position the VET sector for the challenges relating to the development of sustainability and green skills; and enhance the capacity of the Community Education Sector to deliver high quality low cost training.



Research

Research makes an essential contribution to Australia's productivity growth by supporting the development of new products and processes by business, and the spawning of future industries. Through research, we can increase our understanding of the health and environmental challenges that face Australia and develop the solutions needed for a healthy, sustainable future.

In Australia, significant national investment in research infrastructure is required to build on recent investments and develop new capabilities that will underpin our long-term knowledge capacity. Without world-class facilities and networks, our research base – the researchers, students and support staff that work in a range of organisations across the public and private sector will be limited in its ability to undertake the research required to meet national needs, and participate and compete internationally.

These investments will enable the conduct of research and the production of knowledge and ideas that will underpin innovation and contribute to positive economic, social and environmental outcomes.



DESIGN HUB AT RMIT UNIVERSITY



What is this project?

The RMIT Design Hub is 12,000 metre square building providing highly flexible design 'warehouse' spaces and collaborative technical workshops supporting cross disciplinary research and postgraduate education in design. Its scale, composition and range of facilities including workshops and a design archive make the Design Hub unique in Australia and the world.

Why is this education project important?

RMIT University's Design Hub will be a cutting-edge, innovative building in central Melbourne. Incorporating second-skin technology with translucence and display capabilities, the building will facilitate collaboration between internationally recognised design academics and industry practitioners on cross-disciplinary research in state-of-the-art project and workshop spaces. The Design Hub will be of strategic importance to local industry and international partners, and will reinforce Australia's position as a world leader in design research.

What is the total investment?

The Australian Government is investing \$28.6 million over three years towards a total project cost of \$59 million with \$2.5 million brought forward to 2008–09.

What is the project timeline?

Planning is in an advanced stage with construction to commence in 2009. The project is due to be completed in 2011.

Benefits of this project?

The RMIT Design Hub will help to build the University's design capability to develop new and improved practices, techniques and tools for industry; develop new products, services and constructed environments; transform established industries and grow new industries by developing design capability to increase the range of products and services; and raise awareness and disseminate use of design in industry through exhibitions, events and publications.



THE CENTRE FOR OBESITY, DIABETES AND CARDIOVASCULAR DISEASE, UNIVERSITY OF SYDNEY



What is this project?

The University of Sydney will build the Centre for Obesity, Diabetes and Cardiovascular Disease – stage one of a major health and life sciences precinct at the university. The Centre will create a single research environment that combines enabling science, biomedical science, clinical science and population sciences and will house researchers from the university as well as the Sydney Institutes for Health and Medical Research.

Why is this education project important?

Obesity, diabetes and cardiovascular disease are three of the leading causes of death and disability in Australia. This project will create a vibrant, collaborative and multi-disciplinary teaching and research environment at the University of Sydney to advance the diagnosis, treatment and prevention of these diseases.

What is the Commonwealth Government investment?

The Australian Government will invest \$95 million over four years. The project has a total cost of \$406 million.

What is the project timeline?

Planning is underway to allow completion of the project in 2013.

Benefits of this project?

This integrated multi-disciplinary biomedical research and training centre will expand capacity for basic, clinical and translational research on the causes, prevention and treatment of chronic diseases that are the greatest threat to health among most populations worldwide.

The Centre will support innovative teaching, research and research training leading to improved prevention and management of obesity, diabetes and cardiovascular disease. The state-of-the-art facilities and co-location of teaching and research will enhance student engagement in these important areas and will help attract and develop world-class students, clinicians and researchers.

ENERGY TECHNOLOGIES BUILDING, UNIVERSITY OF NEW SOUTH WALES (UNSW)



What is this project?

The UNSW will build the Energy Technologies Building as the focal point for its new Centre for Energy Research and Policy Analysis (CERPA). The proposed building will support UNSW's world-leading work in photovoltaics as well as research into carbon capture and storage, reservoir characterisation, nanomaterials and policy and market analysis. The construction is designed to be carbon neutral, providing a high-profile demonstration of energy efficiency.

Why is this education project important?

Australia faces enormous challenges from the impacts of climate change. The Energy Technologies Building at the UNSW will address these needs by creating a suite of infrastructure to support new research programs, teaching and industry collaboration in emerging and rapidly growing areas of critical importance to Australia's energy security and long-term international climate treaty obligations.

What is the Commonwealth Government investment?

The Australian Government will invest \$75 million over three years. The project has a total cost of \$155 million.

What is the project timeline?

Planning for this project is underway and construction is expected to be completed in late 2011 or early 2012.

Benefits of this project?

The Energy Technologies Building will support cutting edge research and teaching. Its state-of-the-art laboratories and high-tech facilities will ensure Australia remains globally competitive in energy technology and policy.

The Energy Technologies Building will:

- integrate teaching, learning, research and demonstration facilities in an area of national importance;
- allow the University to build critical mass in research into carbon capture and storage, hot rock reservoirs and environmental markets and policy;
- house a range of nationally significant infrastructure, such as the photovoltaic pilot line; and
- provide formal learning and teaching space for 300 engineering students.



INSTITUTE FOR PHOTONICS AND ADVANCED SENSING AT THE UNIVERSITY OF ADELAIDE



What is this project?

The University will create an internationally leading transdisciplinary Institute which will allow it to develop new fibre-based platform technologies to underpin paradigm-changing tools for human health, the environment, industrial processes and defence systems. It will also facilitate breakthroughs in physics, chemistry, biology and environmental science. This capacity will be created through the building of specialised laboratory space to house \$10 million of equipment currently available to form the core of the facility.

Why is this education project important?

The Institute for Photonics and Advanced Sensing at the University of Adelaide will bring together physicists, chemists and biologists to develop new photonic and advanced sensing platform technologies and, in collaboration with other organisations new hybrid solutions to important national challenges in diverse areas, including health, the environment, defence and national security. This will transform the way science can address major challenges facing humanity including climate change and health, and will create a host of benefits for Australian industry and defence.

What is the total investment?

The Australian Government will invest \$28.8 million over three years with a total project cost of \$38.9 million.

What is the project timeline?

Planning for this project is underway and would allow for construction to commence in early-mid 2010. The project is due to be completed in 2011.

Benefits of this project?

The Institute for Photonics and Advanced Sensing will:

- bring together fibre laser research with a fibre development facility, which will allow truly novel fibre laser technologies to emerge;
- enable techniques that emerge from research in photonics and sensing to have an immediate impact on research in fields including biology, chemistry and medicine and simultaneously allow researchers in these fields to influence on the development of new fibre-based platform technologies; and
- allow students to learn the fundamentals of research commercialisation.

NEW HORIZONS CENTRE AT MONASH UNIVERSITY



What is this project?

Through physical and virtual collaboration, the New Horizons Centre brings together dispersed science and engineering expertise in a new, world-class research facility, at the heart of the Clayton Innovation Precinct.

Why is this education project important?

The New Horizons Centre at Monash University will position Australia at the forefront of collaborative research and development across the areas of materials engineering, science, IT and design. It presents an opportunity for Australia to deliver world-class solutions to 21st Century problems for use locally and internationally.

What is the total investment?

The Australian Government will invest \$89.9 million over five years with a total project cost of \$174.5 million.

What is the project timeline?

Planning for this project is underway and would allow for construction to commence in late 2009. This project is due to be completed in 2012.

Benefits of this project?

New Horizons will have a major role in addressing the critical shortage of engineers and scientists needed to sustain Australia's future capacity. In addition, New Horizons will foster increased engagement with industry, both through research commercialisation and the creation of job-ready graduates.

Outcomes will include smarter and cleaner manufacturing, streamlined commercialisation, international e-learning linkages and highly skilled graduates prepared for a multi-disciplinary innovative workplace.



MACQUARIE UNIVERSITY HEARING HUB



What is this project?

Macquarie University will build a world-class hearing research and teaching facility, bringing together key University research groups in hearing and cognitive sciences, neurosurgery, special education, and electronic engineering with major organisations involved in developing hearing technologies and services.

Why is this education project important?

Approximately 1 in 6 Australians have a hearing loss and, with an ageing population, this is estimated to rise to 1 in 4 by the year 2050. The Macquarie University Hearing Hub will help to address this by having a significant impact on quality of life for people suffering hearing loss, with substantial consequent economic and social benefit to Australia.

What is the total investment?

The Australian Government will invest \$40 million over three years with a total project cost of \$100.6 million.

What is the project timeline?

Planning for this project is underway and would allow for construction to commence in late 2009. The project is due for completion in 2011.

Benefits of this project?

This Hearing Hub will enable internationally leading advances in mapping brain/hearing function, understanding auditory processing, assessing auditory system disorders, developing hearing aid and implant technologies, and improving strategies for rehabilitation and learning to hear.

MATERIALS AND MINERALS SCIENCE LEARNING AND RESEARCH HUB AT THE UNIVERSITY OF SOUTH AUSTRALIA



What is this project?

The Australian Government investment will support the construction of a 5000 metre square dedicated building housing innovative, multidisciplinary laboratories and learning spaces designed to grow the next generation of engineering, material and mineral science graduates and provide the interface required to ensure effective knowledge transfer to regional, national and international industry.

Why is this education project important?

The University of South Australia will build an iconic facility to be the focal point for the University's materials and minerals science research and education activities. The building will be part of the Materials and Minerals Science Learning and Research Hub which represents a unique opportunity to bring together first class education and international research facilities to drive transformational change in Australia's key industry sectors, including minerals, materials, manufacturing and systems engineering.

What is the total investment?

The Australian Government is investing \$40 million over four years towards a total project cost of \$73 million with \$763,000 brought forward to 2008–09.

What is the project timeline?

Planning for this project is well underway and would allow for construction to commence in early-mid 2010. The project is due for completion in 2012.

Benefits of this project?

The Materials and Minerals Science Learning and Research Hub will contribute directly to a globally competitive Australian higher education system through the excellence of its education and research programs; support knowledge transfer to local and national industry and exercise regional responsibility in addressing key skilled workforce shortages; bring students into learning environments in which project based learning is integrated into world class research laboratories where national and international academic and industry collaborators work alongside students at all levels in the curriculum; and enable the growth of significant national and international collaborations.



THE SMART INFRASTRUCTURE FACILITY AT THE UNIVERSITY OF WOLLONGONG



What is this project?

The University of Wollongong will create the SMART Infrastructure Facility, a world-first comprehensive research and training infrastructure facility of integrated laboratories that will transform the way that infrastructure-related disciplines are taught and researched. Facilities will include lecture theatres, specialised research and teaching laboratories and collaborative research spaces.

Why is this education project important?

Crucial to Australia's social, economic and environmental prosperity is the reliable operation of our complex web of interdependent infrastructure – rail, air, telecommunications, road, shipping, power, water and others. The University of Wollongong will establish of a facility that, through its teaching and research programs, addresses infrastructure challenges and opportunities and provides for efficient, innovative and smart solutions for the present and into the future.

What is the total investment?

The Australian Government will invest \$35 million over four years, with \$10 million brought forward for expenditure in 2008–09. The project has a total cost of \$81.8 million.

What is the project timeline?

Planning for this project is underway and would allow for construction to commence in early-mid 2009. The project is due for completion in late 2010.

Benefits of this project?

This project will create a world first facility that brings diverse laboratories for infrastructure elements together, thereby integrating currently independent research pursuits. The SMART Infrastructure facility will deliver practical training for engineers, scientists, mathematicians and other relevant professions, at both undergraduate and postgraduate levels, to ensure a future supply of infrastructure professionals. Over and above its core research and teaching function, the facility will also provide key decision support for the management, deployment, risk assessment and optimisation of Australian infrastructure.

WORLD-CLASS VETERINARY SCIENCE FACILITIES – THE UNIVERSITY OF QUEENSLAND SCHOOL OF VETERINARY SCIENCE AT GATTON CAMPUS



What is this project?

The University of Queensland will build three state-of-the-art new buildings – the Veterinary Science building, the UQ Veterinary Hospital and the Veterinary Teaching and Research Facility – as well as completely renovating an existing building to house modern pre-clinical teaching laboratories.

Why is this education project important?

World-class facilities for animal science, health and production underpin excellence in teaching and research. This project will allow the University of Queensland to replace outdated facilities at St Lucia with modern purpose-built, state-of-the-art teaching and research facilities at the Gatton Campus, which will become the most comprehensive single-site animal research and training centre in Australia.

What is the total investment?

The Australian Government will invest \$47.2 million over four years. The project has a total cost of \$95.8 million.

What is the project timeline?

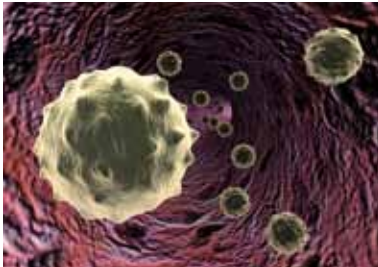
Construction of the broader Gatton campus project has already commenced. The project is due for completion in early 2010.

Benefits of this project?

New facilities and equipment will transform the School of Veterinary Science's teaching and research environments. It will ensure the ongoing success of the School by allowing accreditation with the American Veterinary Medical Association, an indicator of the quality of the course and a key factor in international recognition. By achieving a single-site strategy, the new School of Veterinary Sciences will enhance state, national and international opportunities for collaboration and interaction both within and external to the university.



THE PETER DOHERTY INSTITUTE FOR INFECTION AND IMMUNITY AT THE UNIVERSITY OF MELBOURNE



What is this project?

The Peter Doherty Institute will co-locate the University's world-renowned Department of Microbiology and Immunology and a new Life Sciences Computation Centre, with a number of Victorian Government and World Health Organisation laboratories. The facilities will include a peak computing and bioinformatics capability; a high-throughput DNA sequencing facility; containment laboratories; and teaching & networking spaces.

Why is this education project important?

The Peter Doherty Institute for Infection and Immunity at the University of Melbourne will transform the quality of teaching and research leading to strengthened national capacity and enhanced public health outcomes in infectious disease and provide unique training opportunities with students having access to high quality, real world expertise in microbiology.

What is the total investment?

The Australian Government is investing \$90 million over five years towards a total project cost of \$210 million with \$1 million brought forward to 2008–09 to begin the design stage.

What is the project timeline?

Planning is underway with construction to commence in late 2010. The project is due to be completed in 2012.

Benefits of this project?

The Institute will have many attributes of a centre of disease control. It will pursue a number of integrated research programs in strategic areas including emerging infections, respiratory infections, mycobacteria (eg tuberculosis), food-borne and enteric infections, blood-borne infections and vaccine-preventable infections and allow Australia to solve some critical microbiological problems in Australia rather than having to source technology and expertise overseas.

THE INTERNATIONAL MICROSIMULATION CENTRE AT THE UNIVERSITY OF CANBERRA



What is this project?

The University of Canberra will construct a purpose built teaching, learning and research training Centre for the National Centre for Social and Economic Modelling (NATSEM) on the main campus at Bruce. The building will include a public gallery and auditorium as well as teaching and research spaces for NATSEM students, staff and international visitors.

Why is this education project important?

The International Microsimulation Centre at the University of Canberra will transform the National Centre for Social and Economic Modelling (NATSEM) – an Australian and world leader in microsimulation modelling. Microsimulation modelling is critical for evidenced-based public policy, allowing policy makers to predict how policies will impact on lives now and into the future.

What is the total investment?

The Australian Government will invest \$11.0 million over four years, with \$600,000 brought forward for expenditure in 2008–09.

What is the project timeline?

Planning is underway to allow construction to commence in mid-2009. The project is due for completion in early-mid 2010.

Benefits of this project?

The International Microsimulation Centre will foster a world-class Australian higher education discipline area by giving the University of Canberra and Australia a pivotal role in microsimulation model development and research internationally.

Currently, NATSEM exports both technology and expertise to other countries. The International Microsimulation Centre at the University of Canberra will increase and enhance NATSEM's research capacity and international presence by building external relationships and collaborations with new national and international partners, including other research centres, universities, government and business. It will enable the NATSEM approach to be extended to important new areas of public policy, such as climate change, transport, and infrastructure.



THE TEACHING AND LEARNING CAPITAL FUND (HIGHER EDUCATION)



What is this project?

The Teaching and Learning Capital Fund (TLC) is a one-off \$500 million funding round targeting capital expenditure towards the development of teaching and learning spaces in Australia's universities that are physically and technologically appropriate for 21st century approaches to tertiary education.

TLC funding will be distributed among universities through grants taking into account each university's share of total domestic students. Institutions with large numbers of students will especially benefit. The Australian National University will receive an additional \$10 million in recognition of its unique mix of teaching and research. Universities will determine the projects to be undertaken consistent with their individual missions and campus needs.

Why is this education project important?

TLC will revitalise university teaching and learning spaces across Australia in a way that responds immediately to areas of demand. The fund will target the development of new infrastructure as well as the upgrading of existing facilities.

What is the total investment?

The Australian Government will invest \$500 million in 2009–10.

What is the project timeline?

TLC grants will be made from 1 July 2009 and all funds will need to be expended by 30 June 2012.

Benefits of this project?

TLC will transform teaching and learning spaces across the country in response to areas of demand. University campuses will be revitalised by the development of new infrastructure and upgrading of existing facilities. Critical infrastructure such as lecture theatres, tutorial rooms, auditoria and performance spaces, laboratories, libraries and student study spaces will be modernised to meet contemporary needs.

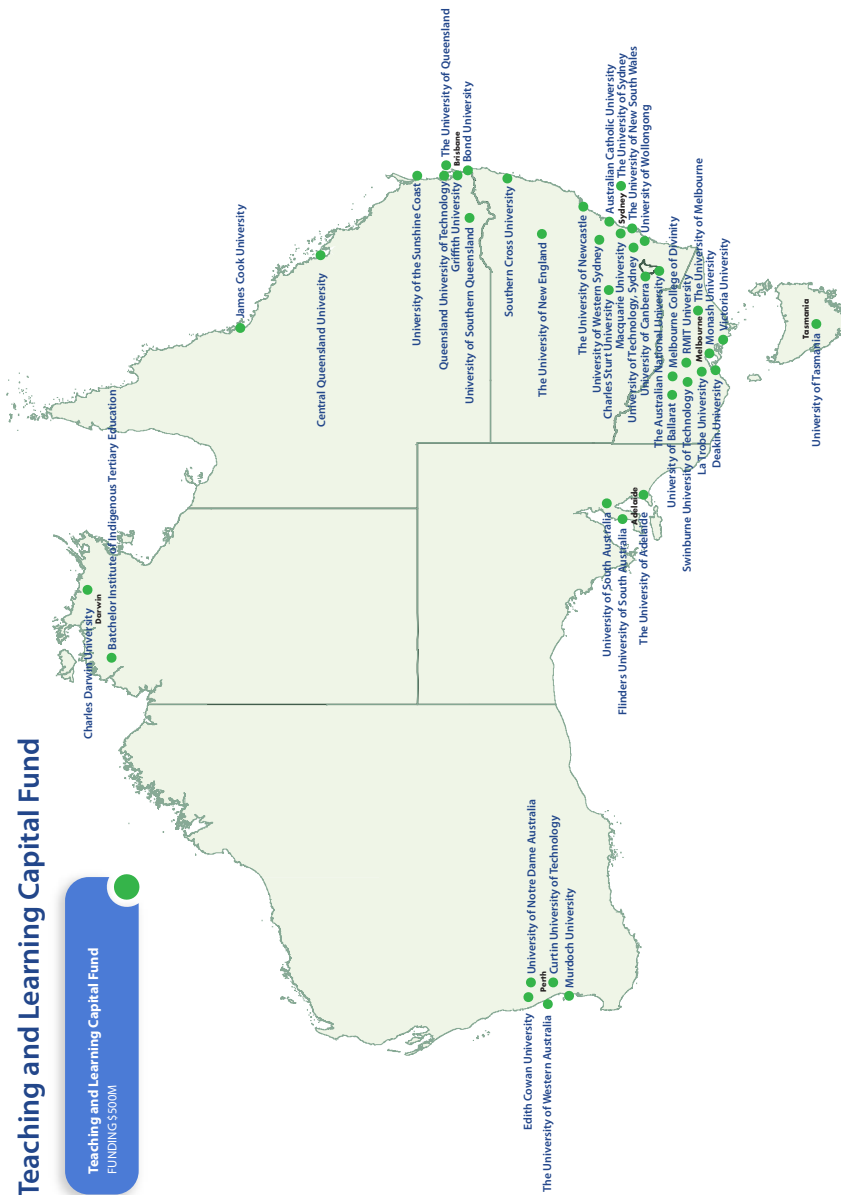
World class information and communications technology infrastructure, so integral to the 21st century teaching and learning experience, will also be delivered, as will infrastructure for vital student amenities.

The provision of world class teaching and learning faculties will boost student outcomes across a range of disciplines and increase Australia's reputation for delivering high quality education.

Teaching and Learning Capital Fund

Teaching and Learning Capital Fund

FUNDING \$500M





THE TEACHING AND LEARNING CAPITAL FUND – VOCATIONAL EDUCATION AND TRAINING

Why is this education project important?

The Teaching and Learning Capital Fund for Vocational Education and Training (TLC – VET) will revitalise teaching and learning spaces in Technical and Further Education (TAFE) institutes and other public providers, industry and training provider consortia and Community Education providers across Australia. It will respond immediately to areas of current and expected future demand. The fund will target the development of minor new infrastructure as well as the upgrading of existing facilities.

What is this project?

TLC – VET is a one-off \$500 million funding round targeting capital expenditure towards the development of new facilities, and the upgrade of existing teaching and learning spaces in Australia's public training providers to meet the skill challenges facing Australia. The fund will assist TAFE, encourage the development of innovative industry and training provider consortia and recognise the important role of Community Education providers. It will enable the vocational education and training sector to provide education that is physically and technologically appropriate for 21st century approaches to learning.

The project will have two funding elements:

- Positioning TAFE infrastructure for tomorrow's challenges – \$400 million by 30 June 2010; and
- Investing in Community Education – \$100 million by 30 June 2010.

TLC – VET funding will benefit institutions with both small and large numbers of students. The funding will be delivered by 30 June 2010 through a competitive grants program. Public training providers, along with consortia that could include public providers but also involving Industry, private training providers and community education providers will develop proposals to enable Australia to meet emerging skills needs. Projects will be assessed on their relative merits.

What is the total investment?

The Australian Government will invest \$500 million in 2009–10.

What is the project timeline?

TLC – VET will be implemented in 2009–10 to meet immediate and emerging infrastructure needs.

Benefits of this project?

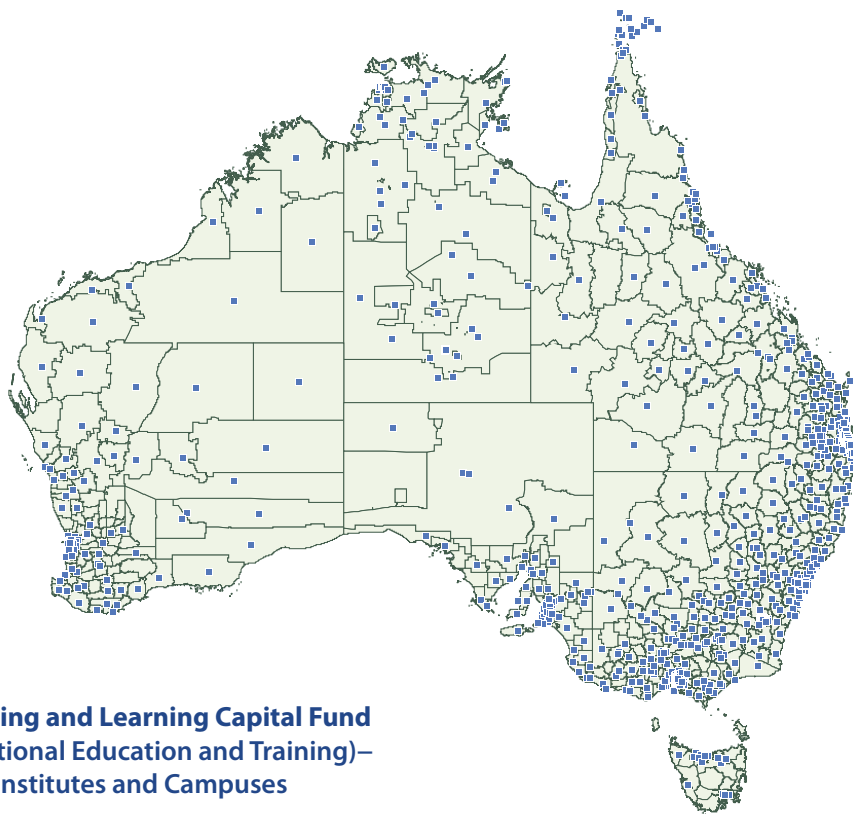
TLC – VET will transform teaching and learning spaces across the country in response to areas of current and future demand. Public providers including TAFE campuses in hundreds of locations, new industry/training provider consortia and Community Education providers will be revitalised by the opportunity to develop new infrastructure and to upgrade existing facilities.

Critical infrastructure such as workshops, teaching rooms, auditoria and performance spaces, laboratories, libraries and student study spaces will be modernised to meet contemporary needs.

The fund will assist industry to adjust and for the workforce to develop new skills where restructuring is required. A particular focus will be to support the development of sustainability and green skills. The project will boost employment opportunities during the construction and post construction phases across Australia.

World class information and communications technology infrastructure, so integral to the 21st century teaching and learning experience, will also be delivered.

The provision of these new teaching and learning facilities will boost student outcomes across a range of disciplines and increase Australia's reputation for delivering high quality, flexible and creative vocational education and training.



**Teaching and Learning Capital Fund
(Vocational Education and Training)–
TAFE Institutes and Campuses**





8 ¹	1354	770	44
15	423	847	22.2
51 ²	402	293	10.4
24	235 ¹	124	8.2
01 ¹	172 ¹	164 ¹	7.2
31	281	100	3.1
22	271 ¹	197 ¹	12.4
91	211 ¹	149	37
91	234 ¹	37	3.7
10	511 ¹		

5. BUSINESS

Business investment is a fundamental part of economic growth. Investment levels have been strong over recent years and have contributed to the strength of the Australian economy. In the face of challenging economic conditions, it is likely that businesses will cut back on their planned capital investment.

Given the importance of this investment, the Government will offer an investment allowance, to encourage businesses to continue to invest. The investment allowance is an additional 10 per cent tax deduction for new tangible assets.

The investment allowance will be available on new assets which cost more than \$10,000. This threshold has been chosen to ensure that the measure encourages larger capital investments, which are fundamental to ongoing economic growth.

The Government is also taking steps to help Australian small businesses to weather the global financial crisis by cutting the quarterly pay-as-you-go (PAYG) instalment payable in respect of the December 2008 quarter. This will offer some much-needed relief to around 1.3 million small businesses.

INVESTMENT ALLOWANCE

What is this initiative?

To boost business investment, the Government will introduce a 10 per cent investment allowance to encourage businesses to undertake capital investment. The investment allowance is an additional tax deduction, equal to 10 per cent of the cost of qualifying assets.

The investment allowance will be available to businesses who acquire new tangible depreciating assets which cost more than \$10,000. Tangible depreciating assets include most types of plant and equipment, vehicles and other assets which are used by businesses.

Examples of assets include harvesting equipment, cranes, aircraft, drilling equipment and bulldozers.

The investment allowance will be available for new assets which are acquired, held under a contract or constructed after today and before 30 June 2009. These assets need to be installed and ready for use by June 2010 in order for the investment allowance to be claimed.

Why is this important?

The measure will encourage businesses to continue to invest for the future, in an environment where they might otherwise defer or cut back on planned capital investment.

What is the cost to the Commonwealth?

The measure has a cost of \$1.6 billion over the forward estimates period.

What is the timeline for the initiative?

The investment allowance will be available for new assets which are acquired, held under a contract or constructed from today and before 30 June 2009. These assets need to be installed and ready for use by June 2010 in order for the investment allowance to be claimed.

Benefits of this initiative?

The measure aims to encourage businesses to undertake capital investment. This investment stimulates business activity which has positive macroeconomic benefits.

Example:

On 10 February 2009 a bakery enters into a contract to purchase a new oven at a total cost of \$50,000 and with an effective life of 20 years. The oven is installed ready for use on 10 August 2009.

When the business lodges its 2009–10 income tax return, the taxpayer will be able to claim a deduction of \$7,500 in respect of the oven: the first depreciation deduction of \$2,500 ($\$50,000/20$) using the straight line method ; and the investment allowance of \$5,000 ($\$50,000 \times 0.1$).

8%	1354	770	44
15	423	847	22.2
15.5	402	293	10.4
15.5	235.5	124	8.2
15.5	172.5	164.5	7.2
15.5	181	100	3.1
15.5	171	197.5	12.4
15.5	234.5	149	3.7
15.5	311	37	

PAY AS YOU GO INSTALMENTS REDUCTION MEASURE

What is this initiative?

The Government will help Australian small businesses to weather the global financial crisis by cutting the quarterly pay-as-you-go (PAYG) instalment payable in respect of the December 2008 quarter by 20 per cent.

This will offer some much-needed relief to around 1.3 million small businesses.

Why is this initiative important?

This 20 per cent cut in the February instalment will more accurately reflect small businesses' average actual profit growth in the current economic environment.

This 20 per cent reduction will be available to businesses with aggregated turnover of \$2 million per annum or less.

What is the cost to the Commonwealth?

The cost of the initiative is estimated to be \$440 million in 2008–09. This represents the bringing forward of the expected lower revenue collection from small businesses in 2009–10 caused by the current economic conditions.

There will be no net cost to the Commonwealth over the full forward estimates period.

Who will receive the reduction?

The 20 per cent PAYG instalment reduction applies to 'small business entities' as defined in the tax law. In general a 'small business entity':

- carries on a business; and
- satisfies the \$2 million aggregated turnover test.

This reduction does not apply to taxpayers who calculate their instalments based on the instalment rate notified by the ATO. Their payments will automatically adjust when they apply the given rate to their actual income for the quarter.

What is the timeline for the initiative?

The 20 per cent reduction applies to the instalment amount shown on the Business Activity Statement (BAS) dispatched by the Australian Taxation Office (ATO) in December 2008 for the quarter ending on 31 December 2008. This instalment amount is due on or before 28 February 2009 (which will be extended to 2 March 2009 as 28 February 2009 falls on a weekend) for most small business taxpayers. For some small business taxpayers (for example, small businesses which elect to report and pay the goods and services tax on a monthly basis), this due date is 21 January 2009. As such, for the quarter ending 31 December 2008, small business entities are only required to pay 80 per cent of the instalment amount shown on the BAS on 21 January 2009 or 2 March 2009.

Small businesses can further vary their instalments based on the reduced amount in accordance with the existing law.

Benefits of this initiative?

This initiative will provide immediate cash flow relief to small businesses and encourage small business confidence in the current economic environment.

Example:

The average tax liability of a small company with an annual turnover of less than \$2 million was around \$20,000 for the 2007–08 income year. Based on this liability and taking into account a GDP uplift factor of 8 per cent, the average PAYG instalment amount for the 2008–09 income year is \$21,600, which is \$5,400 payable quarterly. With the 20 per cent annual reduction in the PAYG instalment occurring on 28 February 2009, the average small company with a turnover of less than \$2m a year will pay \$1,080 less.

APPENDIX A – PROJECTS BY STATE

NATIONWIDE AND CROSS BORDER

Project	Cth Investment (\$m)	Total Investment (\$m)
Teaching and Learning Capital Fund (vocational education and training) (National)	500.0	500.0
Black Spots	60.0	60.0
Teaching and Learning Capital Fund (higher education) (multistate component)	8.3	8.3
Total	568.3	568.3

NEW SOUTH WALES

Project	Cth Investment (\$m)	Total Investment (\$m)
ARTC Equity Injection	580.0	
Pacific Highway – Bulahdelah Bypass	310.0	310.0
Hunter Valley: Liverpool Range New Rail Alignment (a)		290.0
Hunter Valley: Third Rail Line Between Maitland and Minimbah (a)		270.0
Hume Highway – Woomargama Bypass	265.0	265.0
Hume Highway – Tarcutta Bypass	225.0	225.0
Pacific Highway – Sextons Hill, Banora Point	210.0	286.0
Teaching and Learning Capital Fund (higher education) (NSW component)	153.0	153.0
Hunter Valley: Minimbah Bank Third Rail Line (a)		114.0
Centre for Obesity, Diabetes and Cardiovascular Disease at the University of Sydney	95.0	406.0
Cootamundra – Parkes Track Upgrade	91.5	91.5
Energy Technologies Building at UNSW	75.0	155.0
Hunter Valley: Ulan Line Passing Loops and Duplication (a)		57.0
Hearing Hub at Macquarie University	40.0	100.6
Hunter Valley: Bidirectional Signalling Maitland – Branxton (a)		40.0
SMART Infrastructure Facility at the University of Wollongong	35.0	81.8

Hunter Valley: St Heliers – Muswellbrook Duplication (a)		27.0
Sydney – Brisbane New and Extended and Upgraded loops (NSW component)	45.1	45.1
Cootamundra – Crystal Brook New and Extended Loops (NSW component)	35.0	35.0
Melbourne to Junee Passing lanes (NSW component)	14.9	14.9
Total	2,174.9	2,967.3

a) This project is enabled by the Government's injection of \$580 million of equity into the ARTC.

VICTORIA

Project	Cth Investment (\$m)	Total Investment (\$m)
Western Ring Road Upgrade	900.0	1200.0
Goulburn Valley Highway – Nagambie Bypass	216.0	270.0
Western Highway – Anthonys Cutting	160.0	200.0
Princes Highway – Traralgon to Sale	140.0	220.0
Teaching and Learning Capital Fund (higher education) (VIC component)	123.0	123.0
Western Victoria Track Upgrade	105.7	105.7
Peter Doherty Institute for Infection and Immunity at the University of Melbourne	90.0	210.0
New Horizons Centre, Monash University	89.9	174.5
Wodonga Bypass Duplication	50.0	50.0
RMIT Design Hub	28.6	59.0
Seymour – Wodonga Track upgrade	45.0	45.0
Melbourne to Junee Passing lanes (VIC component)	14.9	14.9
Total	1,963.1	2,672.1

QUEENSLAND

Project	Cth Investment (\$m)	Total Investment (\$m)
Ipswich Motorway – Dinmore to Goodna	1140.0	1140.0
Pacific Motorway – Springwood South to Daisy Hill	200.0	400.0
Teaching and Learning Capital Fund (higher education) (QLD component)	93.2	93.2
Queensland Border – Acacia Ridge upgrade	55.8	55.8

Bruce Highway – Douglas Arterial	55.0	110.0
World-class veterinary science facilities – the University of Queensland School of Veterinary Science – Gatton Campus	47.2	95.8
Total	1,591.2	1,894.8

WESTERN AUSTRALIA

Project	Cth Investment (\$m)	Total Investment (\$m)
East Kimberley Development Package: Expanding the Ord	195.0	391.0
Mandurah Entrance Road	65.0	130.0
Teaching and Learning Capital Fund (higher education) (WA component)	49.9	49.9
Adelaide to Kalgoorlie New and Extended Loops (WA component)	8.0	8.0
Total	317.9	578.9

SOUTH AUSTRALIA

Project	Cth Investment (\$m)	Total Investment (\$m)
Northern Expressway	451.2	564.0
Materials and Minerals Science Learning and Research Hub at the University of South Australia	40.0	73.0
Advanced Train Management System (Phase 2)	45.0	90.0
Melbourne to Adelaide Extended Loops (SA component)	76.0	76.0
Teaching and Learning Capital Fund (higher education) (SA component)	34.8	34.8
Institute for Photonics and Advanced Sensing at the University of Adelaide	28.8	38.9
Adelaide to Kalgoorlie New and Extended Loops (SA component)	15.0	15.0
Cootamundra–Crystal Brook New and Extended Loops (SA component)	7.0	7.0
Total	697.8	898.7

TASMANIA

Project	Cth Investment (\$m)	Total Investment (\$m)
Midland Highway – Brighton Bypass	164.0	164.0
Teaching and Learning Capital Fund (higher education) (TAS component)	10.5	10.5
Total	174.5	174.5

NORTHERN TERRITORY

Project	Cth Investment (\$m)	Total Investment (\$m)
Teaching and Learning Capital Fund (higher education) (NT component)	3.5	3.5

AUSTRALIAN CAPITAL TERRITORY

Project	Cth Investment (\$m)	Total Investment (\$m)
Teaching and Learning Capital Fund (higher education) (ACT component)	23.6	23.6
The International Microsimulation Centre	11.0	11.7
Total	34.6	35.3

Total Commonwealth investment	7,525.8	
Total Commonwealth, State and Private investment		9,793.4

APPENDIX B – PROJECTS BY TYPE

AUSTRALIAN RAIL TRACK CORPORATION

Project	Cth Investment (\$m)	Total Investment (\$m)
ARTC Equity Injection	580.0	
Hunter Valley: Liverpool Range New Rail Alignment (a)		290.0
Hunter Valley: Third Rail Line Between Maitland and Minimbah (a)		270.0
Hunter Valley: Minimbah Bank Third Rail Line (a)		114.0
Hunter Valley: Ulan Line Passing Loops and Duplication		57.0
Hunter Valley: Bidirectional Signalling Maitland – Branxton (a)		40.0
Hunter Valley: St Heliers – Muswellbrook Duplication (a)		27.0
Western Victoria Track Upgrade	105.7	105.7
Cootamundra – Parkes Track Upgrade	91.5	91.5
Melbourne to Adelaide Extended Loops	76.0	76.0
Queensland Border – Acacia Ridge upgrade	55.8	55.8
Wodonga Bypass Duplication	50.0	50.0
Sydney – Brisbane New and Extended and Upgraded loops	45.1	45.1
Advanced Train Management System (Phase 2)	45.0	90.0
Seymour – Wodonga Track upgrade	45.0	45.0
Cootamundra – Crystal Brook New and Extended Loops	42.0	42.0
Melbourne to Junee Passing lanes	29.7	29.7
Adelaide to Kalgoorlie New and Extended Loops	23.0	23.0
Total	1,188.8	1,451.8

a) This project is enabled by the Government's injection of \$580 million of equity into the ARTC.

BUILDING AUSTRALIA PROGRAM AND OTHER INFRASTRUCTURE PROJECTS

Project	Cth Investment (\$m)	Total Investment (\$m)
Ipswich Motorway – Dinmore to Goodna	1140.0	1140.0
Western Ring Road Upgrade	900.0	1200.0
Northern Expressway	451.2	564.0
Pacific Highway – Bulahdelah Bypass	310.0	310.0
Hume Highway – Woomargama Bypass	265.0	265.0
Hume Highway – Tarcutta Bypass	225.0	225.0
Goulburn Valley Highway – Nagambie Bypass	216.0	270.0
Pacific Highway – Sextons Hill, Banora Point	210.0	286.0
Pacific Motorway – Springwood South to Daisy Hill	200.0	400.0
East Kimberley Development Package: Expanding the Ord	195.0	391.0
Midland Highway – Brighton Bypass	164.0	164.0
Western Highway – Anthony's Cutting	160.0	200.0
Princes Highway – Traralgon to Sale	140.0	220.0
Mandurah Entrance Road	65.0	130.0
Blackspots	60.0	60.0
Bruce Highway – Douglas Arterial	55.0	110.0
Total	4,756.2	5,935.0

EDUCATION

Project	Cth Investment (\$m)	Total Investment (\$m)
Teaching and Learning Capital Fund (vocational education and training) (National)	500.0	500.0
Teaching and Learning Capital Fund (higher education) (national)	500.0	500.0
Centre for Obesity, Diabetes and Cardiovascular Disease at the University of Sydney	95.0	406.0
Peter Doherty Institute for Infection and Immunity at the University of Melbourne	90.0	210.0
New Horizons Centre, Monash University	89.9	174.5
Energy Technologies Building at UNSW	75.0	155.0
World-class veterinary science facilities – the University of Queensland School of Veterinary Science – Gatton Campus	47.2	95.8
Hearing Hub at Macquarie University	40.0	100.6
Materials and Minerals Science Learning and Research Hub at the University of South Australia	40.0	73.0
SMART Infrastructure Facility at the University of Wollongong	35.0	81.8
Institute for Photonics and Advanced Sensing at the University of Adelaide	28.8	38.9
RMIT Design Hub	28.6	59.0
The International Microsimulation Centre	11.0	11.7
Total	1,580.5	2,406.3
Total Commonwealth investment	7,525.8	
Total Commonwealth, State and Private investment		9,793.4



