



# VICTORIA'S SUBMISSION TO INFRASTRUCTURE AUSTRALIA

VICTORIAN GOVERNMENT  
NOVEMBER 2011





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## EXECUTIVE SUMMARY

The Victorian Coalition Government is pleased to nominate projects for consideration by Infrastructure Australia. The submission has been developed in the context of increasing demand on our transport networks, a growing freight task driven by increased volume and product diversity of exports to trade partners, declining productivity growth across the economy, escalating construction costs and a tight fiscal environment.

This submission has been developed using Infrastructure Australia's Reform and Investment Framework and taking into account Infrastructure Australia's recent statements that it will only consider projects in excess of \$100 million. Along with other transport projects, Victoria will be undertaking a number of infrastructure projects that fall outside these guidelines such as schools, hospitals and other state based service-orientated infrastructure.

### **Victoria's nominated projects are supported by important reforms and strategic frameworks**

Victoria's projects are part of a much broader infrastructure agenda, which is based on:

- > strong new strategic policy frameworks;
- > important new reforms; and
- > rigorous new processes.

Key strategic frameworks that will shape the Victorian Government's broader infrastructure agenda include the *metropolitan planning strategy* and *Regional Growth Plans*. These frameworks will form the basis of a shared vision to guide Victoria's growth and change over the next 30 to 40 years. The nominated Infrastructure Australia projects will provide an important context for development of this vision whilst also responding to well-understood and pressing challenges within Victoria.

This work is supported by key policy reforms across the water, energy and telecommunications sectors. The government is improving Victoria's water systems to achieve integration and resilience through the Victorian Government's Living Melbourne, Living Victoria policy, supporting appropriate reforms to prepare for a changing energy market, and pursuing initiatives to address gaps in key telecommunications markets.

The Victorian Government is implementing key reforms to address some of Victoria's long standing and well understood challenges. Recognising this, one of the first steps, the Victorian Government took was to institute new and more rigorous processes for decision making on infrastructure projects.

### **Victoria has found greater value for money through increased rigour and reform**

The Victorian Government has introduced rigorous planning processes to evaluate projects to ensure that the right projects are put forward, to be delivered in the right way and at the right time.

As a result of these reforms, the Victorian Government has significantly re-scoped and improved a number of previously nominated projects and identified opportunities for greater private sector involvement.

The Victorian Government is using these new processes to further develop key election commitments before submitting them to Infrastructure Australia for consideration.

Recognising that funding at all levels of government is limited, the submission's nominated projects are practical and pragmatic responses to Victoria's key infrastructure challenges. Importantly, these projects can be accelerated should the funding environment change.

The nominated projects demonstrate that the Victorian Government is:

- > **taking action to maximise the efficiency of existing infrastructure** through initiatives such as boosting capacity on the Dandenong Rail Corridor, trialling high capacity signalling and progressively removing level crossings to alleviate congestion;
- > **unlocking development capacity in Melbourne through identifying integrated urban renewal opportunities;**
- > **progressing new, strategic city-shaping projects that would increase capacity at the core of the transport network** through an improved Melbourne Metro project and East West Link project, which will deliver better value for money for Victorians;
- > **planning for and protecting transport corridors to Victoria's international and domestic airports,** including creating links to Avalon as Victoria's next international airport; and
- > **increasing the capacity of the State's ports and freight networks to meet the nation's growing freight task** by supporting the fast tracked development of the Port of Hastings.

Work to finalise priorities for the next round of the Nation Building Program will also be informed by the Victorian Government's reform agenda. The Victorian Government will continue to engage with the Commonwealth Government and Infrastructure Australia as this work progresses.

Supporting economies in all parts of Victoria and maintaining and improving liveability outside of Melbourne is a key priority for the Victorian Government and a number of the nominated projects aim to improve connectivity and drive economic development in regional Victoria.

## Victoria is calling for shared action on common issues

Consistent with the Victorian Government's commitment to value for money in its investments, the submission requests the support of Infrastructure Australia and the Commonwealth to address key challenges that are common to all Australian jurisdictions. These challenges include tackling escalating construction costs, achieving integrated urban renewal and building more resilient water supplies, such as the better use of storm water.

## Where to from here

Victorians are proud of their diverse and strong economy, crucial contribution to the national economy, world-renowned liveability and history as a leader and innovator in infrastructure development and delivery. The Victorian Government submission provides a practical and pragmatic approach to build on this reputation and drive improvements for the Victorian and national economies. To this end, the Victorian Government looks forward to working with Infrastructure Australia and the Commonwealth Government to progress Victoria's nominated projects.

# 1 CONTINUING VICTORIA'S CIVIC AND ECONOMIC LEGACY AND BOOSTING VICTORIA'S CONTRIBUTION TO THE NATION

## 1.1 Victoria plays a central role in the national economy

Victoria is home to about one quarter of the nation's people and represents about one quarter of the nation's gross domestic product.

Melbourne contributes approximately 70 per cent of Victoria's gross state product, it has the nation's busiest container port, and largest curfew-free major international airport.

Victoria is Australia's largest exporter of intellectual property services and technical services such as architecture and engineering, it is the nation's largest manufacturing centre; the national leader in biotechnology, nanotechnology, life sciences and computing; and home to a number of headquarters of major international and national companies.

Victoria has a diversified economy and the availability of modern and efficient infrastructure will be a key contributor to realising the State's economic potential. The quality of infrastructure will also influence Victoria's ability to continue attracting and retaining the best and brightest people who will support the knowledge economy into the future.

Regional industries are also crucial to the nation. For example, Victoria is home to 87 per cent of Australia's dairy industry, which has the potential to grow further as demand increases in line with prosperity in Asia. Victoria's regions also contain important transport networks that connect Melbourne to other states and regional areas and provide critical trade links for the transportation of goods and people. Transport links also play a very significant role in exporting produce from regional areas in Victoria, South Australia and New South Wales through to the Port of Melbourne.

Victoria's diverse and innovative industries are well positioned to meet the growing goods and services requirements of key trade partners. For instance, Victoria's agricultural sector is recognised internationally as a reliable supplier of safe, high quality food and beverage products. Increasing Victoria's transport and freight capacity will support the growth of Victoria's export industries and increase national income.



## 1.2 Victoria is building on its strong civic and economic legacy

The foresight of previous generations to plan and to build infrastructure that would benefit Victorians for decades to come has contributed to Victoria's success as a modern economy and a vibrant state.

Infrastructure is the physical legacy that one generation leaves to the next. Victorians today are the beneficiaries of the vision and aspiration of previous generations: the crucial freeways and roads; the City Loop that is the heart of a busy public transport network; an efficient energy supply and distribution network; water quality and reliability that is the envy of the nation; quality road and rail links between Melbourne and key regional centres and beyond; and the air and sea ports that underpin a freight and logistics network that links Australia to the world.

This infrastructure supports the Victorian economy and the national economy as well as the cities, towns, industries, institutions, culture and people that make Victoria an excellent place to live. Without the investment and foresight of previous generations, Victoria would not be the place it is today.

In the past, Victoria has worked hard to get the most from investment – innovating and leading in project development and delivery models, and achieving new levels of excellence in technological innovation.

The Victorian Government is implementing a broad infrastructure agenda with a strategic framework and key reforms to progress infrastructure projects that deliver maximum economic benefit and improve project delivery.

## 1.3 Victoria's infrastructure backlog and escalating construction costs in a tight fiscal environment are challenging economic development

In a domestic economic environment with limited budget capacity and a challenging global economic framework, it is important to better understand and realise the economic potential of cities.

In addition to Victoria's growing and changing freight challenge and infrastructure demands for growing communities, the growth of the knowledge economy continues to contribute to employment growth in central Melbourne and increases the use of the transport system. Clusters such as the Monash innovation precinct in Melbourne's south-east are also crucial to the State's economic success and future growth.

The required investment extends beyond building transport capacity to delivering reliable and affordable supplies of essential services, such as power and water. This challenge is heightened by the need to ensure these services are resilient and safe in the face of environmental risks such as bushfires and floods.

The infrastructure investment required to address the backlog and meet these challenges is of a scale and cost not experienced in Victoria for several decades. The required investment is beyond the capacity of even the best-managed state budget, in the most favourable economic cycle. There is a large imbalance between what a state can raise in revenue and what the state is responsible for delivering in terms of services and infrastructure.

These challenges have been compounded by escalating construction costs and declining productivity growth in the construction sector.

The Victorian Government is committed to ensuring that the right infrastructure is built in the right places and at the right time to maximise economic and community benefit and deliver a civic legacy that enables current and future generations to prosper.

## 2 PLANNING CITIES AND REGIONS THAT DRIVE PRODUCTIVITY AND LIVEABILITY

High-quality infrastructure and land-use planning provides investment certainty for government and the private sector.

Cities that are well planned ensure co-location of industries and people with similar skills and easy access to markets and services and this drives productivity and innovation gains.

Victoria's strong population growth over the past decade has increased accommodation of households in outer suburban areas. It is essential that this growth is properly planned and investments in infrastructure are made to support the development of these communities. The Victorian Government is developing a new strategic framework and liveability audit to plan for these requirements.

The Victorian Government is committed to growing regional Victorian communities by improving transport links to and from Melbourne and to other regional cities, supporting economic growth and job creation and improving liveability with quality community services.

Victoria's regional population growth is at its highest rate for 30 years and this positive trend is expected to continue. Forty per cent of this growth is expected to occur in Geelong, Ballarat and Bendigo, providing a platform for strengthening the economic contribution of regional cities to the state.

Regional Victoria will be important in balancing future population growth. The Victorian Government is committed to supporting growth in regional Victoria to build Victoria's long-term prosperity and competitiveness by investing in the competitive advantages of different regional areas and delivering infrastructure to provide greater access to national and international markets.



## 2.1 Victoria is developing a metropolitan planning strategy and regional growth plans to manage Victoria's growth and change

The Victorian Government is implementing a strategic planning system that takes a long-term view, adapts to changing circumstances and reflects the uniqueness of individual cities.

The Victorian Government is developing **a new outcomes-based metropolitan planning strategy** that values the potential of regional Victoria and will help guide Melbourne and Victoria's growth and development over the next 30 to 40 years. The strategy will be underpinned by stakeholder and community engagement.

The Victorian Government is planning city-shaping infrastructure including the Melbourne Metro rail tunnel, the Dandenong Rail Capacity project, the East West Link and the development of the Port of Hastings. These city-shaping projects will underpin the metropolitan planning strategy, provide certainty and a platform for industry and community engagement. This is consistent with Infrastructure Australia's goal of taking a long term view in planning for cities.

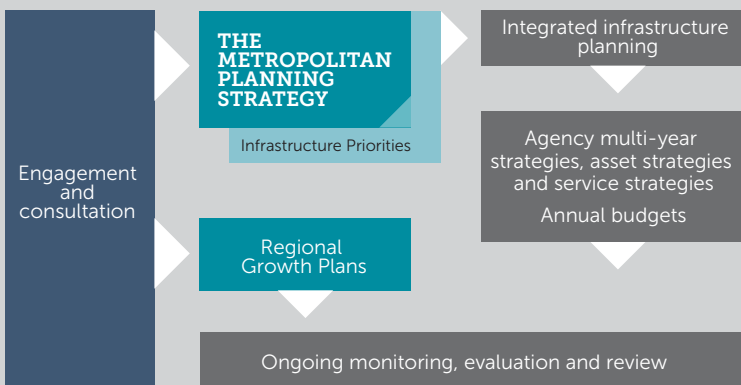
Through these processes the Victorian Government will work with the community to ensure that the valued aspects of Victoria's heritage and character are protected, while allowing for future needs, including housing choice, transport accessibility, economic growth and environmental protection.

The Victorian Government will ensure that planning for new development, transport and other infrastructure does not limit future decision making or create barriers for future opportunities. Integrated land-use and infrastructure planning is critical to maximising investment and building resilience to future challenges.

Integrated land-use and infrastructure planning at a sub-metropolitan level will provide a framework for coordination of planning and investment in social infrastructure.



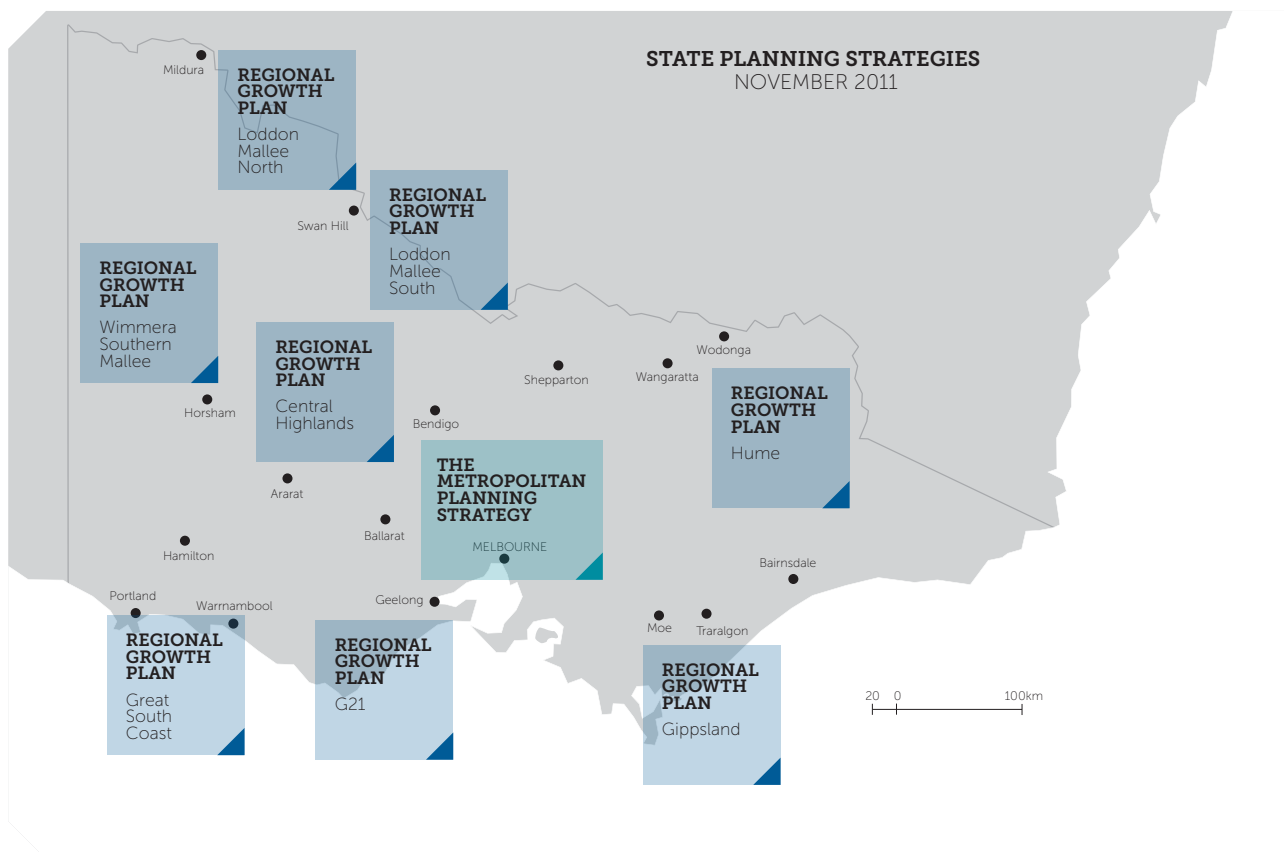
### METROPOLITAN PLANNING STRATEGY CONCEPT FRAMEWORK NOVEMBER 2011



Across rural Victoria, the **Regional Growth Plans** will guide development. The plans will identify important environmental, economic and cultural resources and will guide future infrastructure investment and residential, employment, industrial, commercial, agriculture and other rural land-use.

The Victorian Government is also committed to supporting competitive international gateways and efficient freight networks, including delivering a Transport Solutions Framework. This new framework, when combined with Regional Growth Plans, will identify and address logistical bottlenecks in the transport network to support the growth and competitiveness of regional producers and industry.

Like the metropolitan planning strategy, the Regional Growth Plans will take an integrated approach to strategic land-use and infrastructure planning and develop a long-term vision in consultation with industry and the community.



### 3 REFORMING KEY PROCESSES AND DELIVERY MODELS TO IMPROVE OUTCOMES

Strategic planning and project-specific work is necessary for Victoria to meet its infrastructure challenges and to preserve and enhance productivity and liveability for future generations. Once strategic planning is undertaken, and priority projects are selected, project-level planning, procurement and construction is required. Throughout these stages, and during the operation of the infrastructure, it is important to have appropriate processes and governance in place.

In each of these areas, important work is underway to improve Victoria's performance, outcomes and value for money.

The Victorian Government has asked the Victorian Parliamentary Public Accounts and Estimates Committee to conduct an inquiry into effective decision making for the successful delivery of significant infrastructure projects, and Victoria's Independent Review of State Finances is examining infrastructure funding, management and delivery. The review will consider how to: maximise competition for tenders; reduce project costs; and increase transparency. The final report is expected in early 2012. While the Government looks forward to receiving and responding to the recommendations of both of these processes, the Government's planning and project reforms are well underway.

#### 3.1 The Victorian Government is introducing new processes to improve performance

Successfully delivering infrastructure starts well before the construction phase. Careful and thorough planning is essential to proper infrastructure decision making and delivery.

The Victorian Government has made significant improvements to the approval and management of high value and high risk projects. As part of this new process, greater scrutiny and monitoring of projects occurs throughout business case development, financing decision making and delivery. This includes careful consideration of the robustness of business cases prior to deciding on funding and the Treasurer's approval is required at key stages in project development and implementation (including major variations). Regular monitoring is also scheduled throughout project delivery.

The Victorian Government is requesting Infrastructure Australia support to develop an agreed methodology for understanding the wider economic benefits of **Integrated Urban Renewal**, particularly for transport projects, by incorporating the wider economic benefits of urban renewal into decision making regarding urban infrastructure investment. By better understanding the true benefits of an investment proposal, governments will be able to make more informed decisions about project prioritisation and sequencing, and ways to involve the private sector.

### 3.2 Victoria is a leader and innovator of procurement, a vital aspect of project delivery

In making a decision to proceed with a project, it is important to consider the best way for it to be procured, including the potential for value and innovation to be provided by the private sector.

Running an efficient financing and purchasing process for major projects is an important part of delivering projects on time and on budget, and achieving desired outcomes. This can also reduce costs faced by private sector bidders. These improvements, in turn, are likely to help ensure a state receives the best value for money outcome, while maintaining the confidence of the market.

Victoria has a strong record of leadership and innovation in the development and refinement of procurement policies. Through bodies such as Infrastructure Australia, the Council of Australian Governments (COAG), and the Infrastructure Finance Working Group, Victoria will continue to play a leading role in the development of national procurement policies, guidelines and reforms.



## CityLink: a case study in innovation and leadership

The CityLink project demonstrates Victoria's history of leadership and innovation in infrastructure. The project linked three of Melbourne's four major freeways and was, at the time, the world's largest private construction project and Australia's largest infrastructure project since the Snowy Mountains hydro-electric scheme. By one calculation, it was eight times larger than the previous largest road project in Australia.

The project was not just large but also highly complex, involving significant construction risk in tunnelling and environmental issues. The engineering showpiece of the project, the Burnley tunnel, is one of the longest urban three-lane tunnels in the world. The innovative tolling system, which allows vehicles to travel at full speed through tolling gantries, was the first fully electronic toll road of its type in the world.

The PPP model meant that CityLink was delivered early and in a way that effectively transferred the construction risk; the state now has a vital piece of infrastructure for current and future generations.



Victoria will continue to explore opportunities to use the PPP model and partner with the private sector to deliver key pieces of infrastructure. This is consistent with the recommendation of Engineers Australia to embrace opportunities to partner with the private sector to fund infrastructure developments.

Work to streamline the procurement process in order to reduce bid costs and timeframes is a key priority of the government. The Victorian Government is implementing a range of improvements to increase the efficiency of the tender processes.

Availability-based PPPs continue to develop as a model to deliver value for money and appropriately involve the private sector in the provision of infrastructure. This includes accessing a stream of annuity based payments to fund availability-based PPPs. There may be a greater role in the future for the Commonwealth Government in providing ongoing payments towards availability-based PPPs for vital infrastructure as part of its ongoing support for nationally significant infrastructure.

The Victorian Government does not support congestion charging. However the Victorian Government is committed to fully exploring opportunities for maximising private sector contributions to infrastructure funding, financing and delivery.

### **3.3 Victoria is tackling escalating construction costs, a significant barrier to infrastructure delivery**

When it comes to actually delivering the projects, one of the biggest challenges has been the escalating cost of construction. Infrastructure Australia has already identified the importance of construction costs and construction industry productivity as constraints on the ability of all Australian governments to deliver their infrastructure plans. In part, these constraints arise because of: the complex nature of projects, particularly in already developed areas; strong demand for skilled labour, particularly in the mining states; and the level of competition in the construction market.

In recent years, labour prices in the construction industry have grown significantly faster than labour costs generally, and labour productivity growth in Australia's construction industry is below that of many other sectors and almost half that of the construction sector in the US. In Victoria, the challenge is particularly acute; the construction sector has attracted more investigations and fines from the Australian Building and Construction Commissioner than all other states and territories combined.

The Victorian Government is implementing a number of reforms to address these issues including a review of Victoria's Industrial Relations Principles, which form part of the **Victorian Code of Practice for the Building and Construction Industry**.

The main outcome of the review will be the introduction of Implementation Guidelines to replace the current principles. These guidelines will further assist in the achievement of the Victorian Code objectives and, in particular, the industrial relations, occupational health and safety regulation, and workforce reform elements. This represent a major change in the way the government will engage construction contractors and monitor activity on Victorian building sites.

In October 2011, the Victorian Government commenced consultation on the proposed new guidelines, which seek to encourage workplace arrangements and practices that promote productivity in firms tendering for state government contracts. The Victorian Government is seeking to use its leverage as a significant purchaser of construction services to achieve greater compliance, productivity and broader cultural change across the Victorian building and construction industry.

These Implementation Guidelines reflect the Victorian Government's commitment to increasing flexibility and productivity within the building and construction industry and achieving value for money in infrastructure projects.

Escalating construction costs are a national challenge that would benefit from a national approach. The Victorian Government will continue to advocate for the Commonwealth Government to commence a Productivity Commission inquiry into constraining cost increases and improving productivity in the construction industry.

### 3.4 Victoria is reforming governance processes to improve planning, delivery and operational outcomes

An important part of getting the best possible result in infrastructure planning, delivery and operation is to ensure that appropriate governance mechanisms are in place. Effective governance structures that define accountability and facilitate coordination between government departments and other stakeholder bodies are critical to getting the best value and outcomes from infrastructure and delivering better outcomes for all Victorians.

The Victorian Government is establishing the **Public Transport Development Authority (PTDA)**, to plan, coordinate and integrate public transport services across Victoria. The PTDA will be a one-stop shop, focussed on the needs of public transport users.

The Victorian Government has also taken steps to progress governance reforms in urban renewal and freight, establishing **Places Victoria**, the new urban renewal authority, and the **Port of Hastings Development Authority (PoHDA)**. Places Victoria will be a self-funding organisation working to deliver urban change in strategic locations, attract private sector investment, and help progress development and provide attractive accommodation. The PoHDA will undertake key impact assessment studies to provide a basis for more detailed planning and future development of a container port at Hastings. As a single-purpose entity, the PoHDA will focus on delivering this large and complex project that is a key priority for the Government.

In relation to water markets, the Victorian Government appointed the **Living Victoria Ministerial Advisory Council (MAC)** to provide independent advice on urban water reform to help establish Victoria as a world leader in liveable cities and integrated water cycle management. This is dealt with in more detail in chapter six.

These important governance reforms will form an important part of the next generation of infrastructure investment and use in Victoria.



## 4 UNDERSTANDING THE TRANSPORT CHALLENGES

Victoria has an infrastructure backlog as a result of failure to properly invest in infrastructure to meet growing economic and community needs. The Victorian Government has begun the planning and investment that will be required to address the backlog and realise the Victoria's potential, however Commonwealth funding will be vital.





## 4.1 The road network

Victoria's road network provides for many different forms of transport, including private cars, freight, buses, trams and bicycles, as well as intersecting with the rail network. Development of the freeway network has involved maximising efficient operations through undertaking targeted upgrades and planning for network gaps and new links in areas with new development.

While Victoria continues to use the road network better, traffic volumes are growing. Traffic volumes are increasing on inner, middle and outer freeways, with the strongest growth occurring on outer freeways. Volumes on the established freeway network have grown by nearly 60 per cent in the past 10 years.

Congestion significantly impacts Victoria's productivity and liveability. In Melbourne, both the Commonwealth Bureau of Infrastructure, Transport and Regional Economics and the Victorian Competition and Efficiency Commission estimated the cost of congestion in 2005-06 was in the billions of dollars and both institutions expect this to double in the next 10 to 15 years.

High demand on arterial roads and 'gaps' in the arterial road network limit the efficiency of Melbourne's road network. Melbourne has an over-reliance on the M1/West Gate Bridge and West Gate Freeway as the only high-capacity east-west road connection providing access to the Port of Melbourne, industrial areas and interstate highways. Congestion on these networks adds to transport costs and constrains productivity growth.



## 4.2 The rail network

Victoria's rail network carries suburban passenger trains, regional passenger trains and freight trains. It was built to serve patterns of travel and overall demand quite different from those occurring today.

In the last 10 years there has been significant growth in public transport use, across metropolitan trains and trams as well as regional rail. In the future, residential and employment growth will further increase the overall demand.

Cross-town travel between the north-west and south-east and radial travel to access central Melbourne is expected to increase, intensifying the demand on Melbourne's public transport network. Access from the south-east, outer-north and west to economic activities in central Melbourne and inner-east is constrained by network capacity, particularly in the inner core.

Travel between the regional centres and to Melbourne is also expected to increase. The Regional Rail Link project will go some way to helping meet increased travel patterns, however additional initiatives will enhance and complement these project improvements.

Transformation of the rail system to more modern operations is also required to meet future demands.

Constraints on public transport availability may significantly impede labour productivity, particularly in Melbourne's knowledge-intensive areas. Melbourne's productivity growth has been falling in recent years, in part due to these constraints on its transport system. The growth in size and value of Melbourne's city-based businesses has depended on the radial suburban and regional rail network to link the city to a large, skilled workforce. Improved public transport has the potential to cater for future growth of this high-value sector of Victoria's economy.



### 4.3 The freight network

Victoria's growing freight industry is central to the economy and community well-being, however the freight industry is increasing congestion on the transport network, in turn impacting on other industries and the community.

A significant challenge in Victoria relates to the growing container trade through the Port of Melbourne, Australia's largest international container port, and the associated growth in freight traffic in metropolitan Melbourne. Eighty-seven per cent of containers coming in through the Port of Melbourne have a destination within the metropolitan area and nearly all of these containers are carried on road. Significantly, a third of all containers handled at the Port of Melbourne are loaded with export produce, with the bulk of commodities, such as paper, timber, grain, dairy products and wine, originating in regional Victoria. Improving connections to the port and increasing the state's overall container capacity would benefit Victoria's regional economies.

Victoria is also the international gateway for the export of commodities from across regional Victoria, southern New South Wales and south-east South Australia. Food exports from Victoria alone are worth almost \$7 billion annually, with the state accounting for 87 per cent of Australian dairy exports, worth around \$2.5 billion per annum.

The increasing trend towards containerised grain will also add demand at Victoria's ports. As an example, containerised grain through the Port of Melbourne has doubled in the past three years from approximately 26,000 containers in 2008-09 to approximately 53,000 containers in 2010-11, worth more than \$300 million. This is expected to be higher again next year with this year's Victorian grain harvest estimated to be up 34 per cent on last year.

These road and rail network capacity challenges and those relating to accessing Melbourne's port were similarly recognised in Engineers Australia's most recent report card on Victoria in 2010. Victoria's response to these challenges is detailed below.

## 5 RESPONDING TO THE TRANSPORT CHALLENGES

The Victorian Government's Infrastructure Australia nominated projects, are part of the government's broader infrastructure agenda and are the platform for the next stage of Victoria's development.

The nominated projects will be progressed and developed on a detailed, individual basis and as a set of strategically linked projects.

Individually, each will be subject to rigorous planning and development to assess their feasibility, and the strategic impact on Victoria as a whole.

Collectively this work will underpin the strategic investment choices central to the development of the metropolitan planning strategy and regional growth plans.

Developing the priorities in the context of the metropolitan planning strategy and regional growth plans will also ensure the land-use potential of each and their integration with future development will be fully explored as a core part of project development.

This chapter demonstrates how the Victorian Government is:

- > taking action to maximise the efficiency of existing infrastructure;
- > unlocking development capacity in Melbourne through identifying integrated urban renewal opportunities;
- > progressing new strategic, city-shaping projects that would increase capacity at the core of the transport network;
- > planning for and protecting transport corridors to Victoria's international and domestic airports;
- > increasing the capacity of the State's ports and freight networks to meet the nation's growing freight task; and
- > planning to increase transport services between regional cities and Melbourne as well as services linking major regional cities to foster economic activity and liveability in regional Victoria.



## 5.1 Victoria is taking action to maximise the efficient use of existing infrastructure

The Victorian Government is implementing a comprehensive strategy to identify and implement improvements to existing infrastructure where possible, recognising that targeted investment can deliver significant benefits to the broader network, and pave the way for longer-term infrastructure investments.

For example, the Victorian Government increased funding for rail maintenance by \$100 million in the 2011-12 State Budget over four years, bringing total investment levels to \$900 million. This investment is aimed at increasing the reliability of Melbourne's rail network.

The Victorian Government's plans for the **Dandenong Rail Capacity program**, **High Capacity Signalling project**, **Removing Level Crossings** and **Upgrade Regional Passenger Lines** project are designed to grow capacity.

Initiatives in the **Dandenong Rail Capacity program** include operational improvements such as timetabling changes, station platform lengthening, signalling and power upgrades, road-rail grade separations and other track work. The Dandenong Rail Capacity program can be progressively implemented over the next decade. It would facilitate the running of more regional and metropolitan passenger trains and provide more train paths for freight on this corridor. By removing level crossings, this project could also help to increase the capacity of important roads and improve the efficient movement of freight in the south-east. The Victorian Government is seeking Infrastructure Australia's support in recommending the Dandenong Rail Capacity program for planning funding.

The **High Capacity Signalling project** would increase capacity in the metropolitan network. High capacity signalling systems allow operators to run trains closer together safely, which means more trains can be scheduled per hour and more people can be moved around the network quicker. The Victorian Government is seeking Infrastructure Australia's support in recommending the High Capacity Signalling project for planning funding.

The Victorian Government is also committed to **Removing Level Crossings**. Level crossings contribute to road and rail congestion because trains need to slow down at various points across the network for safety reasons and road traffic needs to stop at these points to give way to trains. This is particularly the case as more train services are added to the system. Level crossings can also form barriers that limit urban renewal and disconnect communities, and reduce regional freight train productivity. The Victorian Government is committed to a program of improving and eliminating level crossings across Melbourne and regional Victoria in order to minimise these issues.

There are a large number of level crossings on the Melbourne metropolitan rail network. The Victorian Government has already committed to the elimination of 12 level crossings in metropolitan Melbourne, including the elimination of three level crossings in Mitcham and Springvale as the initial priority with planning and construction to commence on the remaining crossings. The Victorian Government has also committed to improving safety at country level crossings.

Further work is underway to develop robust business cases to ensure projects are accurately scoped and estimated, and project benefits are well understood and explained. Further work is also required to prioritise other corridors and sites to remove road and rail intersections. The Victorian Government is seeking Infrastructure Australia's support in recommending the Removing Level Crossings project for planning and development funding.

The Victorian Government is also planning improvements to existing rail infrastructure in the regions and the outer-areas of Melbourne. The **Upgrade Regional Passenger Lines project** is focussed on providing additional tracks and an electrified service between Sunshine and Melton, and track upgrades on the Ballarat and Bendigo lines. This project will facilitate sustainable growth in regional Victoria and the outer-areas of Melbourne. It will also boost productivity by better connecting people to jobs and maintaining liveability by giving people choices about where they live. While Victoria is not yet seeking further support on this project at this time, the Victorian Government looks forward to working with Infrastructure Australia in relation to this project in the future.

The Victorian Government is also committed to continuing the application of technology on the metropolitan freeway network through the **National Managed Motorways program**. Just as it is beneficial to increase capacity in the rail network, it is also important to do the same on the road network. One way this can be done is by managing traffic more effectively on our busy freeways, which are important components of the transport network in Melbourne as well as regional Victoria.

The National Managed Motorways proposal includes rolling out initiatives such as priority access for certain vehicle types, varied speed limits depending on traffic and environmental conditions, and managing incidents by using, for example, traffic sensing equipment. This approach has already been implemented in Victoria as part of the M1 Upgrade and is currently being implemented as part of the M80 Upgrade. The Victorian Government is now seeking Infrastructure Australia's support in recommending the National Managed Motorways project for delivery funding to provide further improvements for these key assets.

## Victoria is upgrading a number of significant roads to combat congestion and improve liveability

The Victorian Government has commenced planning for the \$130 million Kilmore-Wallan Bypass, committing \$3.4 million in the 2011-12 State Budget, which will improve road safety for families living in Wallan and Kilmore by taking traffic out of the townships.

Planning for the next stage of the Dingley Bypass is underway. \$20 million was committed in the 2011-12 State Budget to complete the western section of the 19km fully-divided arterial road linking Moorabbin and Dandenong South. Extending the Dingley bypass will respond to increasing traffic demands on the Nepean Highway and local streets in Moorabbin, Cheltenham, Carrum, Dingley, Mentone and Chelsea.

Planning and pre-construction funding of \$4.8 million has been allocated to the **Outer Suburban Arterial Roads Program**, which includes duplication projects at Cardinia Road and High Street Road in Wantirna South and Stud Road in Bayswater.

## 5.2 Victoria is unlocking opportunities for integrated urban renewal in Melbourne

The Victorian Government is unlocking urban renewal possibilities as a key element of the metropolitan planning strategy. The government is committed to identifying urban areas that may be suitable for large-scale urban renewal and developing these areas to provide mostly for residential housing.

The **Tram Route 86 Demonstration project**, in High Street, Darebin, uses tram network and street improvements to encourage new development in targeted areas. The City of Darebin has undergone an extensive community consultation process and there is strong support for initiatives to prioritise public transport and intensify property redevelopment.

This project also includes the application of *SmartRoads*, which has recently won an Award of Excellence from Engineers Australia. The project has been developed to improve the long-term operational management of arterial roads across Victoria. *SmartRoads* manages competing interests for limited road space by giving priority use of the road to different transport modes at particular times of the day.

The Victorian Government has already invested in the first stage of the project, which is now under construction. The government is now seeking Infrastructure Australia's support in recommending the project for funding to deliver the second and third sections of the proposal. This demonstration project will help inform the metropolitan planning strategy.

The Victorian Government's **Integrated Urban Renewal project** seeks support from Infrastructure Australia to fund development of a methodology for incorporating the wider economic benefits of urban renewal into decision making about urban infrastructure investment.



### 5.3 Victoria is progressing new, strategic city-shaping projects that would increase capacity at the core of the transport network

The Victorian Government is progressing major projects to enhance existing infrastructure, and to plan the next stage of city-shaping infrastructure.

The **Melbourne Metro project** is a project of similar potential and scale to Melbourne's City Loop 40 years ago. It comprises a rail tunnel from South Kensington in Melbourne's north-west to South Yarra in Melbourne's south-east. It will deliver an additional pair of tracks through central Melbourne, boosting capacity in the network's inner-core, improving connectivity between Melbourne's north-west and south-east, and providing additional access to the inner-city precincts of Parkville and St Kilda Road.

The Victorian Government has reviewed this project and identified an improved alignment to extend the proposed track from Domain (as previously proposed) to South Yarra to connect more effectively with the existing network. This new alignment will allow for a greater uplift in capacity in the short-term with associated flow-on effects to productivity and liveability and presents a more cost effective option for delivery.

The proposed new train path will connect the Sunshine and Dandenong rail corridors, via the Melbourne CBD. This, in conjunction with the Dandenong Rail Capacity program, will boost capacity on the two lines servicing Melbourne's busy south-east corridor (Frankston and Dandenong) as well as the lines in the north and west of Melbourne. The outer-suburbs of these lines are forecast to absorb Melbourne's largest population increases.

The increase in capacity and improved accessibility will allow for the easy movement of people, giving people access to a larger variety of jobs and employers access to a greater pool of potential employees which will boost productivity.

Melbourne Metro will also increase the number of inner-city train stations, opening new areas including Parkville and St Kilda Road to heavy rail for the first time. The project scope also includes the work necessary to prepare the Arden precinct in North Melbourne for urban renewal. Connecting these inner-city precincts more effectively with one another and the CBD will facilitate easier business to business contact, support innovation and improve connectivity. This project also addresses Engineering Australia's advice that the metropolitan rail system would benefit from modernisation.

In addition to creating an important east-west connection that better connects people and jobs and facilitates urban renewal in key inner-city areas, the Melbourne Metro project will provide additional core capacity to enable the further expansion of the rail network to areas such as Doncaster, Rowville and Melbourne Airport. It will also facilitate the development of the Port of Hastings by freeing up road capacity for the use of freight in Melbourne's south-east corridor. The Victorian Government is seeking Infrastructure Australia's support in recommending the project for delivery funding.



## A corridor approach: Melbourne's south-east

Melbourne's south-east corridor is one of the nation's most economically significant regions. This corridor has the greatest concentration of jobs outside Melbourne's CBD and is a key area for the manufacturing industry and is home to world-leading medical research and biotechnology firms and knowledge-based, technology firms centred around Monash University.

Melbourne's south-east catchment area contributed \$92 billion to the nation's gross domestic product in 2007-08, equivalent to 49 per cent of Melbourne's gross domestic product and 9 per cent of Australian gross domestic product.

The corridor also connects Melbourne to the Latrobe Valley and to the emerging Port of Hastings, making it a critical transport connection for regional Victoria as well as the movement of freight.

To boost the productivity of this economically significant corridor, Victoria is undertaking a number of complementary projects, including Removing Level Crossings, Melbourne Metro, Dandenong Rail Capacity and High Capacity Signalling.

The Melbourne Metro project will increase rail capacity and open up new urban renewal opportunities. The Dandenong Rail Capacity program, which includes signalling upgrades and power upgrades, will provide the potential to deliver more services. This programmatic approach allows progressive upgrades to the corridor and presents a cost effective approach that results in a positive cumulative impact.



The Victorian Government is planning and developing projects to boost road capacity such as the **East West Link**. Investments have already been made in projects such as the M1 Upgrade and the West Gate Bridge Strengthening project that improved the existing asset base to add to east-west road capacity. Now, as these benefits are realised, planning commences on boosting future capacity. One option is a new east-west road link.

The East West Link proposal would deliver a new 18 kilometre inner urban freeway connecting the Eastern Freeway and the Western Ring Road. Significant work has already been undertaken on the section connecting the Port of Melbourne to the Western Ring Road. The Victorian Government recognises the significant benefits the East West Link could deliver and has undertaken work to take forward detailed planning for the whole corridor, in particular the eastern section.

The project has the potential to remove traffic from Melbourne's inner-arterial roads, particularly at Hoddle Street where the Eastern Freeway ends abruptly. Currently in excess of 60,000 vehicles travel along the Eastern Freeway in the morning peak period, more than 175,000 vehicles use the West Gate Bridge each weekday and more than 100,000 vehicles a day (or about two thirds of traffic currently using the M1) pass through the communities and suburbs north of the CBD.

Addressing this may also provide opportunities for improved public transport such as north-south tram services and bus routes by reducing vehicles on key roads north of the CBD, which are currently impeded by the priority given to east-west traffic.

The Victorian Government is investigating a range of financing options to engage the private sector to assist in financing its infrastructure needs, including major urban road and rail projects.

In addition to improved transport links and connections, the East West Link would facilitate further urban renewal and commercial development opportunities to the north and west of the CBD. Victoria is seeking Infrastructure Australia's support for Commonwealth funding of further planning and development of the East West Link project to identify the best way to progress and enable early delivery of sections in partnership with the private sector.



The Victorian Government is planning new projects to expand the transport network to meet the growing community and industry needs. The Victorian Government is delivering on its election commitment to undertake a number of rail network expansion feasibility studies, including rail links to Doncaster and Rowville in Melbourne and between the regional towns of Geelong, Ballarat and Bendigo. These projects have the potential to boost the rail network's capacity, connect more people with more job opportunities and widen businesses' labour market catchments.

These feasibility studies are a very high priority for the Victorian Government. The Victorian Government will continue to engage with Infrastructure Australia as these studies progress.

### **Doncaster Rail Link**

Given that public transport patronage in the Doncaster area is lower than the Melbourne average, there is the potential for a rail link to boost connectivity and accessibility for residents in the area. The study is due for completion in 2013.

### **Rowville Rail Link**

A rail link to Rowville in Melbourne's south-east has the potential to not only service local residents but also students and businesses accessing the Monash precinct. This new rail line and associated stations would support a new service running from Huntingdale to Rowville via Monash University. The study is due for completion in 2013.

### **Rail Revival Study Geelong, Ballarat and Bendigo**

The Rail Revival Study is examining the long-term feasibility of returning passenger trains between Geelong, Ballarat and Bendigo – Victoria's second, third and fourth largest cities. The Rail Revival would run via Meredith, Maryborough and Castlemaine. Improving the connectivity between these key regional centres may open up opportunities to better manage and facilitate settlement growth and regional development as well as enhance freight and public transport connections in this region.



Photo by Noel Butcher [www.noelb.com](http://www.noelb.com), courtesy of V/Line

## 5.4 Victoria is planning for and protecting transport corridors to Victoria's international and domestic airports

### Melbourne Airport Rail Link

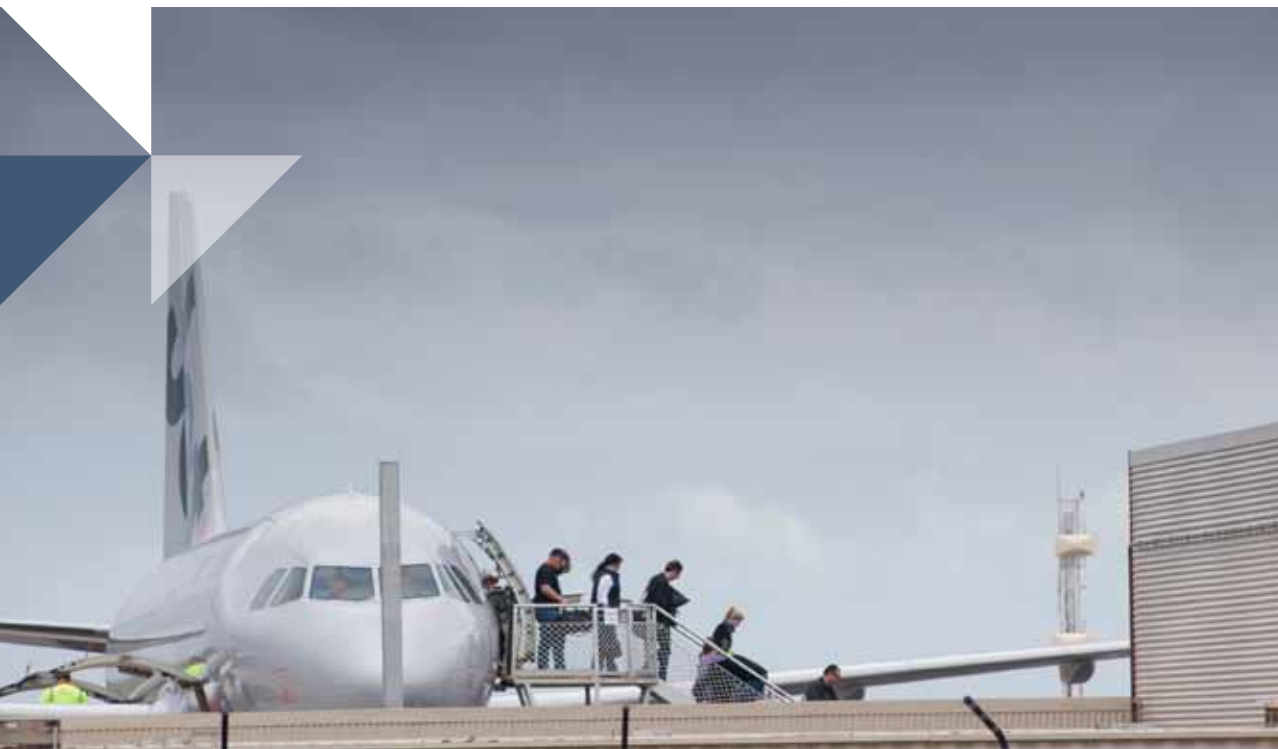
The **Melbourne Airport Rail Link** feasibility study is aimed at identifying an integrated transport solution which optimises the use of existing modes and airport development with a future rail link. Melbourne's Tullamarine Airport is Australia's largest curfew-free major international airport and is the second busiest airport by passenger numbers in Australia. The rail link has the potential to provide travellers with more options to easily travel to and from the airport.

### Avalon Airport Rail Link

The **Avalon Airport Rail Link** will be important to develop Avalon as Victoria's second major international and domestic airport. Along with providing improved access for Melburnians, the Avalon Rail Link will benefit Geelong and South Western Victoria by: increasing jobs and investment opportunities; improving goods and services supply chains; improving accessibility to national and international markets and supporting inbound tourism. Victoria has learnt from the lessons of the past and knows that it is important to plan and build the rail link early in the development of this area to get the best value for money outcome.

This project also has the potential to interface with the Rail Revival study, capitalising on the significant population catchments of most of Victoria's largest regional cities and the Goldfields tourism region.

The Victorian Government has already invested in the planning and development of this proposal and will be consulting with the community and key stakeholders as well as assessing strategic options shortly. Once this initial planning phase is complete, the Victorian Government will work with Infrastructure Australia to further develop this project.



## Avalon Airport

Airports facilitate economic growth at a regional and national level and act as magnets for a wide range of economic activities. The future development of Avalon as a second international and domestic airport is therefore a major regional economic development initiative for Wyndham, Greater Geelong and western Victoria.

Avalon Airport is strategically located between the Port of Geelong, a major commodity port, and the Port of Melbourne, Australia's largest container port. Avalon is also connected to the principal freight network.

The G21 Alliance, which includes Greater Geelong and surrounding regional councils, the Victorian Government and more than 100 community and business organisations, considers Avalon Airport a priority project.

Long-term port capacity planning is underway to accommodate the projected 14 million TEUs of container trade in Victoria by 2050. Planning is also under way for the development of the Metropolitan Intermodal System and the interstate rail freight terminal network, notably the development of the Western Interstate Freight Terminal at the preferred Truganina location in Melbourne's west. These elements are essential complements to the ports strategy and will inform a strategic freight framework for the Avalon corridor.

A strategic planning framework for the Avalon corridor between Geelong and Werribee is currently being prepared to guide the development of the corridor and decision making regarding integrated land use and transport. This will be prepared in the context of the metropolitan planning strategy and Geelong Regional Growth Plan.

An Avalon Airport Precinct development plan will be developed in the Avalon corridor context, and will provide clear direction on the corridors that need to be reserved or protected for a passenger transit link to the airport, freight corridors, freight and logistics terminals, flight corridors and the future development of the airport. Economic benefits will arise from the potential to develop an employment precinct close to Avalon Airport – with possible provision for employment activities that could take advantage of a suitable rail corridor.

## 5.5 Victoria is increasing the capacity of the State's ports and freight networks to meet the nation's growing freight task

The Victorian Government is committed to developing the Port of Hastings as Victoria's next container port to complement the Port of Melbourne and to relieve bottlenecks and congestion. In providing an alternative to the Port of Melbourne, the development of the Port of Hastings will generate competition flow-on benefits for the Victorian and national economies. The Victorian Government is seeking Infrastructure Australia support for Commonwealth funding for transport corridor planning funding, which is required to prepare for construction of the first stage of the development of the Port of Hastings.

To oversee the development of the Port of Hastings, the Victorian Government recently legislated to create the Port of Hastings Development Authority. The first tasks of the new Authority will be to undertake economic, environmental and social impact assessments, and to prepare a detailed plan for the development, including associated landside transport and infrastructure requirements. In doing so, the Authority will conduct extensive consultations with the community, current and potential port users and all other stakeholders.

The Victorian Government is investigating options to free up landside capacity at the Port of Melbourne, including relocating interstate rail freight from the Dynon precinct to a new **Western Interstate Freight Terminal (WIFT)** to establish a world-class intermodal terminal and associated freight precinct linked to rail and road networks. A preferred site in Truganina has now been identified.

Current infrastructure at the Dynon rail terminal precinct, located immediately north of the Port of Melbourne, may struggle to accommodate interstate freight demand projected for the required time horizon (20 years). The WIFT development is complementary to the Australian Rail Track Corporation (ARTC) investment in the network and objective of developing an east coast intermodal terminal network.

The Commonwealth Government is already taking steps in Sydney at Moorebank and in Brisbane to relocate interstate movements away from the centre of large cities to locations on the urban fringe. The Victorian Government is seeking support from Infrastructure Australia to secure Commonwealth funding for planning and project development funds for the WIFT. This will include analysis of the scope for ARTC and private funding.

To support the growing freight task, the Government is also exploring a range of project options to provide high capacity connections to and from key freight precincts and Victoria's international gateways, including the East West Link project as discussed earlier.



An **East West Link** would also provide the core capacity in the freight network to support freight flows between key industrial areas in Melbourne's north, west and south-east, particularly as a developed Port of Hastings comes on stream. This may increase the efficiency of moving freight from regional areas to markets and export gateways in Melbourne.

In addition to increasing core capacity in the freight network through the East West Link project, the Victorian Government is also continuing work to improve access to the Port of Melbourne through a range of potential initiatives including the **Truck Action Plan**. Victoria will investigate how to deliver the Truck Action Plan together with the East West Link project to maximise freight network and local amenity improvements throughout the corridor.

In the longer-term, new transport corridors will be required to secure the future capacity of Melbourne's freight network. To that end, the Victorian Government will continue to consider a larger range of possibilities for added orbital capacity around Melbourne. This orbital capacity may also provide useful links to the Port of Hastings.

The Victorian Government is conducting preliminary assessments of Victoria's long-term transport requirements. This may include projects such as a **North East Link**, which would support the growing transport demand between the outer-east, south-east and northern metropolitan areas. A North East Link would connect the Metropolitan Ring Road with the Eastern Freeway and East Link.

While planning for increased long-term road capacity, the Victorian Government is investigating options for consolidating freight distribution in the metropolitan area via rail. The government is currently reviewing the outcomes of a recent market sounding for the private sector to partner with government to develop a series of metropolitan intermodal terminals networked by high-capacity road and rail links.

Following the market sounding process, the Victorian Government will be assessing opportunities to trial operation of key components of a **Metropolitan Intermodal System (MIS)** to inform further development. The MIS project will also benefit from works associated with the Dandenong Rail Capacity program which would pave the way for increased freight utilisation of the corridor and future connection to the Port of Hastings. As this process develops, the Victorian Government will continue to engage with Infrastructure Australia on the outcomes and opportunities for Commonwealth involvement.

In order to further streamline the movement of goods, the Victorian Government is also investigating options to **Standardise Key Lines**, making Victoria's freight lines in the north and west of Victoria compatible with the national standard gauge. This has the potential to boost competition by attracting more operators and therefore increasing the share of freight transported by rail.

Victoria's south-west is experiencing significant growth in key export commodities, including mineral sands, timber, dairy and meat.



The Victorian Government has identified critical pinch points in the region's supply chain and is already taking action in relation to a number of them. These include investing \$10 million in constructing a new passing loop on the key freight rail line to Melbourne that will support the increased export of meat products and dairy from the region and constructing additional overtaking lanes on the Princes Highway between Colac and the South Australian border.

At the same time, the Victorian Government has continued to plan and assess the critical infrastructure which would support the export of timber and mineral sands through the Port of Portland in the Green Triangle Region. Through this assessment, the Victorian and South Australian Governments have identified a program of short-term priority works that will deliver significant economic benefits. Victoria is seeking Infrastructure Australia's support in recommending the project for delivery funding. Key initiatives include upgrades to the Portland Ring Road and overtaking lanes on the Princes Highway. Previously identified rail projects, for example, development of a common user rail terminal at Portland, remain subject to more detailed investigations.

The Victorian Government is also investing in Eastern Victoria and has committed \$2 million to enable the completion of the first stage of the Port Anthony development in partnership with the private sector. The project provides enabling infrastructure that closes an infrastructure gap in the region, facilitates access to markets, including those that emerge in support of the transition to a low carbon economy, and opens up expansion opportunities for regional industry given Port Anthony's close proximity to possible export sources.



## Projects discussed in chapter five

The Victorian Government's Infrastructure Australia nominated projects are the platform for the next stage of the State's development. These city-shaping projects will help drive the next wave of productivity growth while enhancing Victoria's liveability.

The Victorian Government seeks Infrastructure Australia's support in recommending the following projects to the Commonwealth for planning and development funding:

- > East West Link
- > Port of Hastings
- > Dandenong Rail Capacity program
- > Avalon Airport Rail Link
- > High Capacity Signalling
- > Removing Level Crossings
- > Western Interstate Freight Terminal
- > Integrated Urban Renewal

The Victorian Government seeks Infrastructure Australia's support in recommending the following projects to the Commonwealth for delivery funding:

- > Melbourne Metro
- > National Managed Motorways
- > Tram Route 86
- > Green Triangle Freight Transport program

The Victorian Government will continue to work with Infrastructure Australia as the following projects progress:

- > Doncaster Rail Link Study
- > Rowville Rail Link Study
- > Melbourne Airport Rail Link Study
- > Rail Revival Study
- > Upgrade Regional Passenger Lines
- > Metropolitan Intermodal System
- > Truck Action Plan

## VICTORIA'S PRIORITIES FOR THE NEXT ROUND OF THE NATION BUILDING PROGRAM

Beyond planning for and delivering projects consistent with Infrastructure Australia's priorities, the Victorian Government is well advanced in planning for the next round of the Commonwealth Government's Nation Building Program, which commences in 2014. Victoria looks forward to receiving its fair share of funding from the Commonwealth.

The Victorian Government has already committed to completing the last section of highway duplication between Melbourne and Colac on the Princes Highway West through the next round of Nation Building Program and the government has welcomed the Commonwealth Government's commitment to partner with the Victorian Government to deliver this important network upgrade.

In addition, there are some multistage projects underway through the current Nation Building Program that will require additional Commonwealth funding through the next round for completion, such as the duplication of the Western Highway between Ballarat and Stawell. The Victorian Government has also committed to the delivery of key network upgrades including the removal of level crossings and town bypasses to facilitate greater freight efficiency, including at Koo Wee Rup and Kilmore/Wallan.

At the same time, the Victorian Government is committed to the delivery of key network upgrades including the removal of level crossings, improving access to the freeway network, increasing capacity on Melbourne's roads and facilitating greater freight efficiency through town bypasses and other road upgrades, such as a future bypass of Shepparton and further improvements to Princes Highway East.



In determining future priority projects, the Victorian Government will develop projects that deliver the following outcomes:

- > enhanced connectivity for people in major centres;
- > greater capacity and efficiency in the movement of freight;
- > improved safety; and
- > increased utilisation of existing infrastructure through reform and innovation.

These outcomes align with Infrastructure Australia's draft National Land Freight Strategy, which seeks to identify a national network where Governments can optimise their investment in infrastructure to increase the efficiency and productivity of the freight network. With Commonwealth support, targeted investment in the network can deliver significant benefits. Strengthening bridges on Australia's busiest freight corridor, the Hume, is an example of how governments can support industry by providing greater supply chain capacity and efficiency.

The Victorian Government also supports continued Commonwealth investment in the interstate rail network through the Australia Rail Track Corporation to promote a greater role for rail in the interstate freight market. To that end, Victoria would welcome the Commonwealth funding a feasibility study, through the ARTC, into the proposed Transcontinental Rail Link project. This project has the potential to provide a direct double-stack rail link between Melbourne and Perth by bypassing Adelaide. The scope of the project would include standardising the Geelong – Mildura rail line. This project would also potentially capture new mineral sands export opportunities via Victorian ports from mines being developed in south west NSW.

The Victorian Government will continue to engage with the Commonwealth Government and Infrastructure Australia to finalise the priorities for the next round of the Nation Building Program, which will be subject to and consistent with the Victorian Government's reform agenda and the metropolitan planning strategy and regional growth plans.



## 6 SECURING DIVERSE AND RESILIENT WATER SUPPLIES

### 6.1 Victoria is developing a roadmap for urban water reform

In recent years, a prolonged drought, population growth and ageing infrastructure have combined to challenge the capacity of urban water systems across Australia to deliver secure, efficient and sustainable water supplies. Without action, these drivers will continue to place stress on urban water systems, undermining the sustainability and liveability of our cities and towns.

The Victorian Government is developing a plan under its Living Melbourne, Living Victoria policy to create a resilient water system, using a diverse range of supplies (including better use of rainwater, stormwater and recycled water), to significantly delay the need for the next major water augmentation for Melbourne and buffer against unexpected shortfalls in supply. No recycled water will be supplied for drinking purposes. Reaching the overall goal of a smart and resilient system to underpin a liveable, sustainable and productive Melbourne will require an integrated system planned and managed to:

- > support liveable and sustainable communities;
- > protect the environmental health of urban waterways and bays;
- > provide secure water supplies efficiently;
- > protect public health; and
- > deliver affordable essential water services.

Recognising the significance of this task, in January 2011, the Minister for Water appointed the Living Victoria Ministerial Advisory Council to provide independent strategic advice to guide the establishment of Melbourne as a world leader in integrated water cycle management and sustainability to make Victoria's urban landscape more amenable and liveable.

The Council includes Mike Waller, immediate past chair of Sustainability Victoria, Rob Skinner, former Melbourne Water Managing Director, Professor Rob Adams, Melbourne City Council's Director of City Design and Sue Holliday, Managing Director of Strategies for Change.

The Council delivered its initial Roadmap in March 2011, outlining a recommended direction for the management and use of water in Melbourne. The Roadmap noted that it would be useful to:

- > agree a vision for the contribution of water to urban liveability;
- > facilitate greater customer choice and innovation;
- > improve the integration of urban and water planning;
- > optimise the use of all available water sources;
- > establish clear environmental and public health outcomes;
- > establish a common approach to economic evaluation;
- > review approaches to the pricing and valuing of all water resources; and
- > strengthen the current institutional and governance arrangements.

Following the Roadmap, the Victorian Government asked the Council to prepare a plan for implementing the recommended reforms outlined in the Roadmap. The Council delivered its final report, the Living Melbourne Living Victoria Implementation Plan. The government is currently considering the plan. The focus of the Council's work has been on Melbourne; however, it is intended that the broad principles will be applicable across Victoria's regional cities and towns.

The Victorian Government looks forward to sharing the outcomes of this work with the community and Infrastructure Australia as well as working with the Commonwealth on an ongoing basis.

## 6.2 Victoria is modernising its irrigation infrastructure

The Victorian and Commonwealth Governments have reached a new agreement to deliver the nation's largest irrigation infrastructure renewal project. This investment to modernise irrigation infrastructure in Northern Victoria includes Commonwealth funding for the Northern Victorian Irrigation Renewal Project Stage 2, strategic water sales and on-farm irrigation efficiency funding.

Through this package Victoria has made a substantial outcome-focussed commitment to modernise irrigation infrastructure in Northern Victoria and has guaranteed the transfer of a total of 214 GL of water to the Commonwealth. In recognition of the broad benefits of such irrigation infrastructure renewal, Victoria has also proposed a project to upgrade water infrastructure in the Sunraysia region and is seeking a Commonwealth Government contribution towards this.

## 6.3 Victoria is seeking to use stormwater more effectively

In addition to these irrigation reforms, it is important that governments invest in new approaches to water management in areas of new growth and urban renewal to ensure that opportunities to make better use of existing water resources are not lost and to protect healthy urban waterways.

Increasing urban development and shifts in our climate are also placing increasing pressure on the existing drainage systems of our cities and towns. In the past, urban areas were designed and built to drain water as quickly as possible via hard surfaces, including concrete-lined channels. Recent heavy rainfall has revealed the inadequacy of this decades old infrastructure.

To reduce the impacts of stormwater on existing infrastructure, reduce flooding and facilitate greater use of stormwater as an alternative water supply, Victoria will need to deal with the legacy issues associated with out-dated approaches to stormwater management. The Victorian Government looks forward to working closely with Infrastructure Australia and the Commonwealth to develop and implement solutions to address this challenge.

The amenity and the capacity of existing urban drainage systems could be improved. Victoria is developing integrated water cycle solutions (including increased uptake of water sensitive urban design), which may improve urban amenity by retaining more water within the urban environment.

Improving out-dated stormwater infrastructure in this way will also help to reduce potable water demand and improve urban amenity, contributing to the Victorian Government and Infrastructure Australia's shared goal of ensuring secure, clean water supplies, and supporting quality of life and economic productivity.



## 7 SECURING COST-EFFECTIVE AND SUSTAINABLE ENERGY SUPPLIES

### 7.1 Victoria is preparing for a changing energy market and helping communities adjust to a carbon price

The potential implementation of a national carbon price will have direct impacts on Victoria's energy market.

The Victorian Government has called on the Commonwealth to consult actively with Victoria on the development of the carbon price and related assistance packages and is working to ensure Victoria is not disproportionately disadvantaged in comparison to other states.

The Victorian Government is developing a long-term plan for future industry and employment development in the Latrobe Valley, the region most affected by changes in electricity supply resulting from the implementation of a carbon price. This planning will come together in the Latrobe Valley Industry and Employment Roadmap, which will be released by July 2012 to coincide with the commencement of a carbon price. This plan will explore infrastructure needs in the Latrobe Valley, as part of identifying opportunities to foster new industry and investment, reduce reliance on coal fired electricity generation and secure long term employment for the Latrobe Valley.

The Victorian Government is working with local governments, building owners and estate developers seeking to develop and install co-generation and tri-generation plants. In central Dandenong, the government has developed in partnership with the private sector Australia's first commercialised cross title co-generation project covering approximately seven hectares of urban renewal land. This project is viewed as a pilot for an energy efficient urban renewal Precinct Energy Project infrastructure solution at the Maribyrnong Defence site that could be owned, operated and funded by the private sector. The Victorian Government is seeking Infrastructure Australia's support in recommending the project for delivery funding to contribute to the implementation of this project.

The Victorian Government is also providing practical support for renewable energy through its Energy Technology Investment Strategy and has recently committed \$25 million towards Greener Earth Energy's geothermal demonstration project near Geelong.

The Victorian Government is also investing significantly in regional Victoria. Victoria will invest \$100 million over the next four years to extend natural gas across regional Victoria and encourage greater investment in the regions. The Energy for the Regions program will be funded through the \$1 billion Regional Growth Fund and will deliver natural gas to a number of Victorian towns, including a major upgrade of Mildura's natural gas capacity and investigating the feasibility of providing natural gas to Victorian communities along the Murray River.

## 7.2 Victoria supports work underway on the national energy market

Victoria will face a range of challenges as the energy market undergoes major changes over the coming decade in response to proposed carbon pricing and renewable energy policies. The potential introduction of a carbon tax and the expanded Renewable Energy Target Scheme will create unprecedented investment and technical challenges, imposing significant adjustment pressures on Victoria's energy industries.

These policies will change the way energy is produced and used and will increase the price of energy for final consumers. Renewable energy and an increasing use of gas for electricity generation will result in a more diverse and complex electricity generation profile requiring major new investment in transmission networks and the development of grids that can manage more complex patterns of electricity demand and production. The regulatory and commercial frameworks governing network planning and investment in the long-term, and network operation and management in the short-term, will also need to be robust to meet these challenges.

In the long-term it is critical that the transmission frameworks ensure that network investment is delivered in a timely manner and in the correct locations, in response to changes in the wholesale market. In the short-term it is important that network congestion is managed efficiently.

The Victorian Government is committed to providing an affordable, reliable and sustainable energy supply for Victorians. The Government will continue to work with other jurisdictions, the Commonwealth and the national energy market institutions to promote reform to the national energy sector which furthers these three goals.

### Projects discussed in chapter seven

> Precinct Energy Project



## 8 SUPPORTING SUSTAINED INVESTMENT IN BROADBAND INFRASTRUCTURE THAT BOOSTS PRODUCTIVITY AND IMPROVES SERVICE DELIVERY

### 8.1 Structural reform of the telecommunications market

The Victorian Government considers that ongoing development of telecommunications infrastructure, particularly broadband infrastructure, should be a national priority. As enabling infrastructure, the use of broadband services has a well-documented link to productivity performance and economic growth in advanced economies. For example, a recent Deloitte Access Economics report estimated approximately \$27 billion in productivity increases due to internet use in Australia. Broadband is also critical to improving health and education outcomes and improving resource use for environmental benefits.

The Victorian Government has identified gaps in the infrastructure serving key Victorian telecommunications markets, such as mobile and regional fibre optic backhaul. The Victorian Government is seeking Commonwealth co-operation to address this issue.

While engaging constructively with the Commonwealth Government and NBN Co in the delivery of benefits from the National Broadband Network (NBN) project for Victoria, the government has identified substantial policy risks associated with the NBN as it is currently planned: in particular,

- > there is significant uncertainty about the long-term impact of the NBN on competition in the telecommunications market, the cost, timing and transparency of infrastructure rollout and the lack of focus on realising economic benefits from the productive use of broadband; and
- > other potential national telecommunications infrastructure investment priorities are not being given adequate national consideration, because they sit outside the focus of the NBN Co.

The Victorian Government considers Infrastructure Australia the best forum for the development, assessment and prioritisation of government telecommunications infrastructure investments, and notes that the NBN has been developed outside Infrastructure Australia frameworks.

The Victorian Government would welcome the opportunity to work with Infrastructure Australia, the Commonwealth, other state and territory governments and the private sector to support the development of Australia's telecommunications infrastructure and services.



## 9 IMPROVING INFRASTRUCTURE AND SERVICES FOR INDIGENOUS COMMUNITIES

Historically the Commonwealth has funded municipal and essential services including infrastructure in two discrete Victorian Indigenous communities at Lake Tyers and Framlingham. Continued Commonwealth funding to support essential Indigenous infrastructure in Victoria is critical.

These communities require ongoing repairs and maintenance to housing as well as supporting infrastructure to be installed and improved over time.

A range of infrastructure work is planned for Lake Tyers and Framlingham in 2011-12, such as addressing sewage and water needs. Victoria looks forward to working with the Commonwealth to ensure value for money with this funding through the development of a long-term plan to ensure these communities have access to housing, water, sewage, power supply and other services.

Currently both state and Commonwealth government agencies are working to develop an assessment of the infrastructure needs of the Indigenous community sector. This will inform the development of a strategic plan by the Victorian Government in 2011-12.



## APPENDIX: NOMINATED PROJECT DESCRIPTIONS

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## EAST WEST LINK

### Current Status with IA

#### Real Potential

Stage 3 – Port Melbourne to Western Ring Road

NB. Stages 1 and 2 (Not submitted previously) – Not currently on IA's pipeline

#### Project Description

This project comprises a new 18 kilometre inner urban freeway connecting the Eastern Freeway and the Western Ring Road, with key intermediate connections including the Tullamarine Freeway, Port of Melbourne and Geelong Road.

The project is made up of 2 stages. It is intended that those sections most amenable to early delivery in partnership with the private sector, including accessing private finance, will be developed first.

- > Eastern Freeway to City Link and then City Link to Port of Melbourne
- > Port of Melbourne to Western Ring Road

The East West Link, in combination with other transport network initiatives, will support the long-term sustainable growth and development of Melbourne, and have state-wide benefits. The project is aimed at:

- > providing an alternative to the M1 corridor (Monash Freeway – CityLink Tunnels – West Gate Bridge – West Gate Freeway);
- > reducing traffic on Melbourne's inner urban arterial roads, especially at the Hoddle Street exit on the Eastern Freeway;
- > linking industry in Melbourne's north, east and west with national and international markets via the Port of Melbourne, and Tullamarine and Avalon Airports; and
- > enhancing urban renewal and commercial development opportunities to the north and west of the CBD.

The East West Link project incorporates an element of scope that has been previously submitted to IA (i.e. Port of Melbourne to Western Ring Road), however the project has now been reconsidered and redefined to include a significantly broader scope.

#### Project Relationships

The East West Link will provide an alternate cross-city route for freight from the future Port of Hastings. The project enables urban development opportunities under consideration in the metropolitan planning strategy.

## Deliverability and Readiness

Planning for the project is at various stages of readiness:

- > stages encompassing Eastern Freeway to City Link and City Link to Port of Melbourne require planning and statutory approval concurrent with business case development;
- > the planning process for Port of Melbourne to Western Ring Road is complete but still requires further statutory approvals; and
- > the construction of each project stage is likely to take three to four years.

The corridors for the Eastern Freeway to Port of Melbourne are still to be determined. These corridors will be informed by planning studies.

## Cost advice

The Victorian Government is seeking IA support for Commonwealth funding of \$30 million (nominal 2012-13) over two years to carry out the next stage of development.

A further submission may be provided to IA seeking additional Commonwealth funding for project delivery once the initial planning is complete.

## PORT OF HASTINGS PLANNING

### Current Status with IA

#### Early Stage

#### Project Description

The Port of Hastings has been nominated as the preferred site to enhance Victoria's international container port capacity. The Victorian Government has legislated to establish the Port of Hastings Development Authority effective 1 January 2012 to oversee the planning and delivery of an expanded Port of Hastings.

Work has also commenced on project scoping investigations into the technical, environmental, social and economic issues that would need to be addressed in developing and evaluating options for port expansion.

This initiative comprises completion of project development activities for the first stage of the Port of Hastings expansion.

#### Project Impact

Current and planned capacity at the Port of Melbourne may begin to approach capacity between 2024 and 2027. Melbourne is Australia's principal international container freight gateway with 38 per cent of the nation's international containers handled through the Port of Melbourne.

Expansion of the Port of Hastings will underpin continuing State growth and productivity post 2024-27 while supporting the continuing role of Melbourne as a key hub in international and domestic freight logistics.

The Port of Hastings could also play a role in the export of natural resource products from Gippsland including timber and woodchip products. It would also enable the accelerated development of industrial and transport-based employment in the south-east region of Melbourne.

#### Project Relationships

The Port of Hastings expansion project would involve associated transport link upgrades, the Metropolitan Intermodal System, and land use opportunities would arise from the accelerated development of new industrial and logistics land uses.

#### Deliverability and Readiness

This project would complete project development activity over four years commencing in 2012-13 and prepare the Port of Hastings expansion for procurement in time to meet forecast demand.

#### Cost advice

The Victorian Government is seeking IA support for Commonwealth funding of \$120 million (nominal 2012-13) over 4 years, commencing in 2012-13 for to prepare for construction of the first stage of the development of the Port of Hastings including associated transport corridor planning required.

A further submission may be provided to IA seeking additional funding for project delivery once the planning is complete.

## MELBOURNE METRO

### Current Status with IA

#### Ready to Proceed

### Project Description

The re-scoped Melbourne Metro project comprises a rail tunnel from South Kensington to South Yarra station that will link the Northern group of rail lines (to Melbourne's north and west) to the south-east. This project has been refined from the original two-stage scope to use a shorter tunnel to connect the Northern and south-east lines in one stage. It will result in an additional pair of tracks through central Melbourne in a 9km tunnel. The project includes five new stations at Arden, Parkville, CBD North, CBD South and Domain. The project also includes site works for the urban redevelopment around the proposed Arden Station.

The project will cater for the increase of rail patronage forecast on the group of lines in Melbourne's west, such as Werribee and Sydenham, within the next decade and, when complemented by works in the Dandenong Rail Capacity program, across lines in the south-east, such as Frankston and Dandenong.

### Project Impact

The Melbourne Metro project responds to population growth, provides better access to jobs and services, increases the capacity of the transport system and facilitates productivity growth. The new infrastructure is designed for high frequency (24 trains/hr), high capacity (9-car) trains.

The rail tunnel from South Kensington to South Yarra will dramatically increase transport capacity to central Melbourne, improving accessibility to Melbourne's knowledge economy and facilitating urban renewal in North Melbourne. The new Metro line will allow the rail network to move an additional 25,000 passengers each hour. When complemented by works to remove other capacity constraints on the network, the Metro line alone will be able to carry 60,000 passengers each hour. It is predicted that more than 140,000 passengers will board or alight trains at the five new Metro stations in the morning peak period by 2030.

### Project Relationships

This project is dependent on completing the Regional Rail Link, Sunbury Electrification and Laverton Upgrade projects. New trains will be required along with the necessary stabling and maintenance facilities. This project will assist in the development of the Rowville Rail Link, the Doncaster Rail Link Dandenong Rail Capacity, Melbourne Airport Rail Link (depending on selection of preferred scheme) and Regional lines upgrade (Melton, Ballarat and Bendigo). Land use opportunities may arise as a result of this project at Arden in North Melbourne (site works at this location are included in the project scope).

### Deliverability and Readiness

The first stage of planning and development has been completed supported by Commonwealth funding. The project is proceeding into the Statutory and Environmental Approvals stage and can be followed by detailed design and pre-construction activities.

### Cost advice

The Victorian Government is seeking IA support for Commonwealth funding of \$130 million (nominal 2012-13) for pre-construction work of this project.

A further submission may be provided to IA seeking additional funding for project delivery once this phase is complete.

## AVALON AIRPORT RAIL LINK

### Current Status with IA

#### Not currently on IA pipeline

[Note the Premier's 2011 letter to the Chair of Infrastructure Australia, which advised of the inclusion of AARL in the State's list of infrastructure priorities.]

### Project Description

The project planning will consider provision for:

- > a rail connection leaving the Geelong to Melbourne rail line between Little River and Lara;
- > grade separations for the link to cross Old Melbourne Road, Geelong Road and Beach Road; and
- > a new rail station at Avalon.

The area around Avalon Airport is already being developed, making the reservation of a rail corridor to the airport increasingly important.

### Project Impact

The provision of high capacity and efficient public passenger services with access to Victoria's two largest cities (Melbourne and Geelong) will provide significant development opportunities for the Avalon precinct. Providing a rail link will be a catalyst to the development of Avalon Airport, supporting the timely provision of an alternative international airport with good surface transport connections. In turn, the airport will provide an economic stimulus to the west of Melbourne and the Geelong region.

Victoria maintains international and national competitiveness through two curfew free airports at Avalon and Tullamarine operating within capacity. This initiative seeks to ensure this competitiveness continues into the future with efficient ground access infrastructure, improved accessibility to air travel and sufficient airport capacity.

### Project Relationships

Development of the metropolitan planning strategy will enable consideration of the future of the Werribee-Geelong corridor.

### Deliverability and Readiness

**Stage 1 works** (Project identification and Planning) have been completed. This included high level operational and rail alignment investigations, specialist investigations and Strategic Assessment for the Department of Treasury and Finance.

**Stage 2 works**, Project Development and Approvals, is now commencing.

### Cost advice

The Victorian Government allocated \$3 million in the 2011-12 Budget to undertake planning for the rail link. Alternative options for the project's future funding are being explored with the operators of Avalon Airport and the Commonwealth Government, which owns the land.

The Victorian Government is seeking IA support for Commonwealth funding of \$30 million (nominal 2012-13) to carry out the next stage of project development work.

A further submission may be provided to IA seeking additional funding for project development and delivery once the initial planning is complete.

## REMOVING LEVEL CROSSINGS

### Current Status with IA

#### Not currently on IA pipeline

### Project Description

This project is a broad ranging program of level crossing replacement across metropolitan Melbourne. It includes the elimination of three level crossings in Mitcham Road and Rooks Road, Mitcham and Springvale Road, Springvale as the initial priority, with planning and construction to commence on the remaining seven crossings across metropolitan Melbourne that have been identified as priorities, including Mountain Highway, Bayswater; Scoresby Road, Bayswater; North Road, Ormond; Blackburn Road, Blackburn; Main Road East/Main Road West, St Albans; Burke Road, Glen Iris; and Murrumbeena Road, Murrumbeena.

This initiative seeks planning and development funding to establish and plan for priority grade separation projects. Alternative financing options, through contributions from the private sector, will also be explored.

### Project Impact

A program of level crossing removal will contribute to improved productivity and safety outcomes in Melbourne and improved land use outcomes by supporting urban renewal to cater for Melbourne's growth. Level crossing elimination addresses:

- > unpredictable delays to traffic flow caused by high train and traffic volumes;
- > delays to rail service efficiency at locations where trains (including express services) must travel slowly over the level crossing (in some cases as low as 15 km/h);
- > high potential for crashes involving trains with vehicles or pedestrians on the level crossing (between 1997 and 2009, there were 38 fatalities at level crossings in metropolitan Melbourne); and
- > barriers that limit urban renewal and disconnect communities.

### Project Relationships

Victoria is committed to removing the level crossing at Springvale Road, Springvale which is a key to the Dandenong Rail Capacity program as well as crossings at Mitcham Road and Rooks Road, Mitcham. The level crossing works proposed at Murrumbeena Road, Murrumbeena may also be incorporated into the Dandenong Rail Capacity program.

### Deliverability and Readiness

- > Development and planning of the first three priority locations Mitcham Road and Rooks Road, Mitcham and Springvale Road, Springvale is underway.
- > Delivery of the program will occur progressively as funding permits.

### Cost advice

The Victorian Government is seeking IA support for Commonwealth funding for planning and development activities of \$16 million (nominal 2012-13) over 3 years.

A further submission may be provided to IA seeking additional funding for project delivery once the initial planning is complete.

## DANDENONG RAIL CAPACITY

### Current Status with IA

Not currently on IA pipeline

### Project Description

This project incorporates a program of initiatives aimed at increasing capacity in a key rail corridor. The program can address growth requirements through a combination of:

- > short-term operational initiatives to maximise use of existing assets including increased numbers of shoulder peak services and train refits;
- > level crossing upgrades (including elimination) to allow a move to more and longer trains across critical road-rail level crossings;
- > rail signalling upgrades;
- > power upgrades required to support any significant increase in train frequency or operation of longer trains;
- > running nine car train sets; and
- > platform lengthening to support longer nine car trains.



## Project Impact

The Dandenong Rail Corridor currently has the capacity to move 12,500 passengers in the morning 1 hour peak period on 15 Metro trains (12,000 passengers) and 2 V/Line trains (500 passengers). The Corridor includes the Pakenham and Cranbourne lines serving Melbourne's south-east, a catchment area which produced a GDP of \$92 billion in 2007-08, equivalent to 49 per cent of Melbourne's GDP, or 9 per cent of Australian GDP.

The corridor also currently carries regional trains from the Latrobe Valley and some rail freight. This initiative will support improved efficiency for freight and commercial traffic movements in the south-east, including on potential future transport links to the Port of Hastings and additional paths for rail freight movements between the Port of Melbourne and freight terminals in the south-east.

The Dandenong Rail Capacity program follows the delivery of Regional Rail Link and will enable future capacity benefits delivered through the Melbourne Metro project. This initiative can be progressively implemented over the next decade, commencing in the next two years. It will facilitate the running of more passenger trains and provide more train paths for freight on this corridor.

The initiatives outlined above (under Project Description) have the potential to lift capacity by nearly 100 per cent, allowing an additional 11,000 people to travel on the corridor per hour. With Melbourne Metro, corridor capacity is increased nearly threefold, adding over 20,000 people per hour compared to today.

## Project Relationships

- > Implementation of Melbourne Metro enables the maximum benefit of the options to increased capacity on the DRC to be achieved.
- > New trains (and associated stabling and maintenance facilities) will also be required.
- > The Dandenong Rail Corridor project is necessary to allow for future connections to the Port of Hastings and the proposed rail line to Rowville.
- > It also enables development of the south-east growth area.

## Deliverability and Readiness

The project is currently at feasibility stage. Initial planning work and options assessment have been undertaken.

## Cost advice

The Victorian Government is seeking IA support for Commonwealth funding of \$30 million (nominal 2012-13) to carry out initial planning and development work.

A further submission may be provided to IA seeking additional funding for project delivery once the initial planning is complete.

## HIGH CAPACITY SIGNALLING (HCS) TEST LINE PROJECT

### Current Status with IA

Not currently on IA pipeline

### Project Description

High Capacity Signalling uses new technology available for in-cab signalling, to enable trains to travel safely closer together.

The project is aimed at testing the use of High Capacity Signalling systems for future rail links (such as Melbourne Metro, Rowville, Doncaster and Melbourne Airport) and future upgrades of existing lines (such as Dandenong). This is a proposal to conduct a trial of High Capacity Signalling on the Sandringham Line. The Sandringham line has been nominated because it operates as a stand-alone rail line.

### Project Impact

This project can help address the train capacity constraints imposed by the existing coloured lights signalling systems. High Capacity Signalling can increase the capacity, reliability and availability of the network while reducing the line side infrastructure requirements and associated operational costs. The project will allow for future installation of High Capacity Signalling as part of the Dandenong Rail Capacity program.

### Project Relationships

- > Delivery of the Digital Train Radio System is important to this project.
- > Projects that would benefit from the completion of this project are rail capacity improvement infrastructure projects, e.g. Melbourne Metro, Dandenong Rail Capacity program, Melbourne Airport Rail Link.

### Deliverability and Readiness

Completion of a full business case, and scoping the requirements for the development work required on the Sandringham Line will be necessary for the project. Commissioning of the test line project is expected to take up to four years from commencement of project funding.

### Cost advice

The Victorian Government is seeking IA support for Commonwealth funding of \$10 million (nominal 2012-13) for the planning phase of the project.

A further submission may be provided to IA seeking support for additional Commonwealth funding.

## TRAM ROUTE 86 DEMONSTRATION PROJECT

### Current Status with IA

#### Ready to Proceed

### Project Description

The Victorian Government supports a scheme to revitalise High Street and Plenty Road, Darebin, for which the City of Darebin led an extensive community consultation process. The scheme includes:

- > various traffic management treatments to provide public transport priority;
- > installing accessible tram stops and replacing tram tracks;
- > changes to parking arrangements; and
- > urban renewal including street beautification works.

The scheme is being undertaken in three sections:

- > Section A: Westgarth Street to Separation Street;
- > Section B: Separation Street to Dundas Street; and
- > Section C: Dundas Street to Albert Street.

This is a pilot project that will inform the metropolitan planning strategy and will be important in assessing transport options that support Government's urban development priorities.

### Project Impact

The project addresses constraints caused by the growth in Melbourne's population, particularly in the inner networks. It would also implement options that can be used to support urban growth in growth corridors/targeted urban renewal locations that will be identified in the metropolitan planning strategy. At completion, it will deliver improved access to jobs, services and recreation opportunities and supports vibrant local communities as well as access to trams for the elderly, people with disabilities and parents with prams.

### Project Relationships

Many other tram roads on the Melbourne metropolitan network will benefit from the implementation and operation of the new initiatives, particularly public transport priority and accessibility. It is envisaged that this approach could be extended to other tram routes across metropolitan Melbourne over time.

## Deliverability and Readiness

- > Section A is underway and due to be completed in December 2011.
- > Section B design work is underway, enabling delivery from 2012 onwards (subject to funding).
- > Section C design work is underway, enabling delivery from 2012 onwards (subject to funding).
- > Delivery of section A is almost complete.

## Cost advice

The Victorian Government is seeking IA support for Commonwealth funding of \$70 million (nominal 2012-13) for the delivery of:

- > \$30 million (nominal) for the implementation of Section B; and
- > \$40 million (nominal) for the implementation of Section C.



## WESTERN INTERSTATE FREIGHT TERMINAL

### Current Status with IA

#### Real Potential

#### Project Description

The project seeks to establish a world-class intermodal terminal and associated freight precinct with efficient rail and road connections in the west of Melbourne.

A staged approach is being proposed for the development of a purpose-built intermodal terminal and freight park.

The project is dependent on the ARTC providing a standard gauge connection.

The first stage comprises the terminal development and the connection between the Sydney-Brisbane line and the Terminal.

#### Project Impact

The Dynon Rail Precinct generates over 2,000 truck movements per day on roads and highways in inner Melbourne. The development of a new Western Terminal will remove these movements from the Port/Dynon area.

The terminal will support projected growth in interstate rail freight and improve productivity through lower distribution costs. It will be a key element in a national rail freight network and contribute to the growth of freight on rail.

A new terminal and co-located freight precinct would continue to support Melbourne's position as a key hub of the nation's freight and logistics industry, and significantly reduce kilometres travelled and cost in the freight distribution task as well as providing for economic and business growth through improved access, competition, efficiency and capacity.

Development of the new interstate freight terminal will also significantly improve the capacity of interstate freight transport in the north-south and east-west corridors connecting Melbourne to the rest of the country.

There is competition for transport capacity and land use in the Port/Dynon precinct particularly in relation to land currently occupied by the interstate rail freight terminal. Relocation of the interstate terminal from its current location would release land, road and rail corridor capacity for alternative higher value use in the current port precinct.

The project also provides opportunities to improve the amenity of the inner west which will itself also encourage economic growth, as well as help to decrease environmental externalities and enhance national productivity.

## Project Relationships

Work done for the Regional Rail Link project has enabled protection of a standard gauge to connect to a new interstate terminal in the west (WIFT).

## Deliverability and Readiness

The project is currently at pre-feasibility development stage with the recent completion of options assessment and preliminary business case. Progressive planning and delivery is proposed over the coming years.

## Cost advice

The Victorian Government is seeking IA support for Commonwealth funding for planning and project development activities of \$10 million (nominal 2012-13) over 2 years commencing 2012-13.

A further submission may be provided to IA seeking additional funding for project delivery once the initial planning is complete.



## NATIONAL MANAGED MOTORWAYS\*

\* "motorway" is used rather than freeway by Infrastructure Australia (IA) for national/international consistency

### Current Status with IA

#### Ready to Proceed

#### Program Description

The Managed Motorways program delivers intelligent transport systems to better manage Melbourne's freeway/tollway network and maximise infrastructure productivity. These systems enable incident management, operational prioritisation, integrated speed and lane use management and provision of travel information.

This submission is part of a national submission "National Smart Managed Motorways program" involving Queensland, New South Wales, Western Australia and South Australia. Victorian projects in the national submission are upgrades to the following road sections:

- > M1 Monash Freeway – High Street to Warrigal Road; and
- > M1 Monash Freeway – Warrigal Road to Clyde Road.

These project proposals build on systems already delivered as part of the M1 Upgrade but will upgrade them from ITS1 to ITS3 standard as required by IA, as well as improving additional road sections.

#### Project Impact

Managed Motorways provides the following benefits:

- > greater throughput on freeways, at a higher speed and with improved reliability, and enhanced productive capacity;
- > efficient, reliable travel on the principal freight network, improving the efficiency of Victoria's supply chain; and
- > efficient vehicle operation – stable flow at the speeds at which vehicles produce the lowest emissions and pollutants per km travelled.

#### Deliverability and Readiness

Planning and progressive delivery of priorities as funding permits.

#### Cost advice

The Victorian Government is seeking IA support for Commonwealth funding of \$115 million (nominal 2012-13) for the delivery of:

- > M1 Monash Freeway – High Street to Warrigal Road section at an estimated cost of \$14.3m (nominal); and
- > M1 Monash Freeway – Warrigal Road to Clyde Road section at an estimated cost of \$100.7m (nominal).

## GREEN TRIANGLE FREIGHT TRANSPORT PROGRAM

### Current Status with IA

#### Real Potential

#### Project Description

The proposed program involves delivery of road projects in south-west Victoria and south-east South Australia to support the region's growing freight task, particularly in relation to wood chips and mineral sands.

Green Triangle initiatives in Victoria include:

- > Princes Highway – overtaking lanes and intersection upgrades;
- > Portland Ring Road – intersection improvements, road widening and pavement strengthening;
- > Woolsthorpe – Heywood Road – resheeting and widening; and
- > local roads (Vic/SA) – upgrades.

#### Project Impact

The Green Triangle Region of south west Victoria and south-east South Australia has a diverse economic base and is experiencing economic growth. There are significant blue gum plantations that are now progressively coming to market. This growth will translate into an increase in the region's freight task in the coming years. The Port of Portland has already undertaken additional port related developments for woodchips and mineral sands and this initiative will enable these and other products to be more efficiently moved to the Port.

#### Project Relationships

This program is not dependent on other projects, but would help improve the efficient transport network in south-west Victoria, and support other Victorian Government investments; for example, a new passing loop on the Warrnambool line.

#### Deliverability and Readiness

The road projects identified in this program are ready for delivery, and if funding is available, would be delivered over the course of two financial years.

#### Cost advice

The Victorian Government is seeking IA support for Commonwealth funding of \$62.8 million (nominal 2012-13) for a number of short-term projects for Victoria within the broader program.

## PRECINCT ENERGY

### Current Status with IA

**Not currently on IA pipeline**

### Project Description

This initiative seeks to develop an innovative and integrated low emission energy efficient urban renewal precinct infrastructure solution at the 128 hectare Maribyrnong Defence site (Maribyrnong) to be owned, operated and funded by the private sector.

This initiative builds on a pilot project being undertaken in Dandenong for a Co-generation Precinct Energy Project (PEP) covering approximately 7 hectares of urban renewal land. This links to the Infrastructure Australia's theme of Developing the National Energy Market through Utilisation of Innovative Technologies.

The key objectives of the PEP initiative for Maribyrnong are:

- > understanding the private sector risk drivers to investing in innovative low emission energy technology within urban renewal projects;
- > ascertaining market acceptance (ie. financier, developer and tenant) of low emission energy with the objective being that its delivery in Maribyrnong (and other urban renewal locations) can be achieved with 100 per cent private funding;
- > without a national thermal energy regulator, the development of a commercial transparent thermal energy governance mechanism is important;
- > development of thermal energy distribution design and implementation expertise;
- > collection of PEP customer energy profile data from Dandenong which will provide valuable information regarding low carbon, built form energy performance and demand, which in turn will be applied to future masterplan design guidelines in Maribyrnong.

Outcomes of this project will be used to inform similar initiatives in other Australian urban renewal projects.

### Cost advice

The Victorian Government is seeking IA support for Commonwealth funding of \$15 million (nominal 2012-13) towards implementation of the Precinct Energy Project.

## INTEGRATED URBAN RENEWAL

### Current Status with IA

**Not currently on IA pipeline**

### Project Description

This initiative is strongly aligned with Infrastructure Australia's theme of Transforming Our Cities, and the identified need to "link infrastructure decisions to land use decisions, including decisions about the phasing of development" (IA report to COAG).

It will:

- > demonstrate the value add of urban renewal to major transport projects and enable land use opportunities to be integrated from the initial stages of project planning;
- > enable an assessment of the cost-benefit of urban renewal under different development scenarios including government provision of infrastructure, developer provision of infrastructure and joint provision of infrastructure and the levers to increase viability of certain development scenarios; and
- > identify best practice approaches to securing investment in urban renewal sites, including how risk sharing can be accommodated.

This project could be undertaken jointly with other jurisdictions, with potential national application upon completion.

### Cost advice

The Victorian Government is seeking IA support for Commonwealth funding of \$2 million for planning and project development activities in developing resources and tools to support integrated land use planning and assessment.



## Accessibility

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