

Green Triangle Region Freight Action Plan

A Joint Initiative of the
Victorian and South Australian
Governments



Government of South Australia

Department for Transport,
Energy and Infrastructure



Ministers' Foreword

With its history of timber, wool, dairy, beef, horticulture and aluminium production, the Green Triangle Region has long been an area of economic significance.

And with \$8.7 billion of new investments set to occur across the Green Triangle Region over the next three to five years, its economic importance to the nation is set to grow.

Significantly, much of this latest investment will be in new and emerging sectors, such as mineral sands and low emissions energy, reflecting the region's diverse economy.

This latest investment, coupled with the massive timber export opportunities over the next decade, presents enormous opportunities for the region. As an example, more than 7000 jobs are expected to be generated from these investments in the Green Triangle Region.

But for these opportunities to be fully realised requires investment in critical road, rail and port infrastructure in the Region.

Recognising this, the Victorian and South Australian Governments have worked closely with local councils and industry to develop this Green Triangle Freight Action Plan.

At the inaugural Green Triangle Freight Ministers' Summit in May 2008, we clearly saw our role as putting the right infrastructure and processes in place to generate wealth and jobs for our communities. And we believe this Action Plan does just that. It identifies the key projects required to meet the growing transport demand in the Region and, significantly, it identifies projects that will capitalise on private sector investment across the Region.

We would like to thank the members of the Freight Action Plan Steering Committee, particularly local government representatives, for their work and excellent advice in the development of this Action Plan.

The development of this Green Triangle Freight Action Plan is a valuable example of governments, industries and communities working together. We believe it is a model for addressing cross-border regulatory anomalies and inefficiencies.

The challenge now for government, industry and communities is to implement these infrastructure projects and reforms. It is a challenge we are ready to meet.



A stylized, handwritten signature of Tim Pallas in white ink, consisting of a large 'T' and 'P' followed by a cursive 'Pallas'.

Tim Pallas
Minister for Roads and Ports
Minister for Major Projects
Victoria



A handwritten signature of Patrick Conlon in white ink, written in a cursive style.

Patrick Conlon
Minister for Transport
Minister for Infrastructure
Minister for Energy
South Australia

This publication is copyright. No part may be reproduced by any process except in accordance with the provisions of the Copyright Act 1968.

© State of Victoria 2009

Authorised by Tim Pallas,
121 Exhibition Street, Melbourne VIC 3000

Authorised by Patrick Conlon,
Roma Mitchell House,
136 North Terrace, Adelaide SA 5000

Designed by Design and Production Unit,
Corporate Public Affairs, Department of Transport.

Printed by Print Dynamics,
25 Lionel Road, Mount Waverley VIC 3139.

If you would like to receive this publication in an accessible format, such as large print or audio please telephone Public Affairs Branch on (03) 9655 6000.

Contents

Ministers' Foreword

1.	Executive Summary	1
2.	Background	6
2.1.	Plantations for Australia: 2020 Vision	6
2.2.	Export/Trade Opportunities	7
2.3.	Green Triangle Regional Profile and Commodity Flows	8
2.3.1.	Hardwood and Softwood Plantations	10
2.3.2.	Mineral Sands	10
3.	Introduction	12
3.1.	Freight Action Plan Objectives	12
3.2.	Freight Action Plan – Approach Adopted	13
4.	Infrastructure Australia	14
5.	Policy Context	16
5.1.	The Victorian Transport Plan	17
5.2.	Freight Futures	17
5.3.	Victorian Ports Policy	17
5.3.1.	Port Futures	17
5.3.2.	Port of Portland Land Use Strategy (PLUS)	17
5.4.	Victoria's Timber Industry Strategy	19
5.5.	A Plan for Managing the Freight Transport for the South East/Limestone Coast Region of South Australia	19
6.	The Dimensions of the Freight Task	20
6.1.	Timber and Chip Flows 2009 – 2018	22
6.2.	Hardwood Harvesting Practices	22
6.3.	Harvesting Scenarios	24
6.4.	Mill Investments	24
6.5.	Proposed Penola Pulp Mill	26
6.6.	Grain, Dairy and Mineral Sands	28
6.6.1.	Grain	29
6.6.2.	Dairy	29
6.6.3.	Mineral Sands	30
6.7.	Other Industries	32
6.7.1.	Portland Aluminium Smelter	32
6.7.2.	Meat Processing	32
6.7.3.	Gas Production	32
6.7.4.	Electricity	32
6.7.5.	Viticulture	33
6.7.6.	Horticulture	33
6.7.7.	Fertiliser	33
6.7.8.	Seafood	33

6.7.9.	Waste Timber	33
6.7.10.	Tourism	33
7.	Green Triangle Region Transport Network	34
7.1.	Existing Transport Network	34
7.1.1	Roads	34
7.1.2.	Rail	36
7.1.3.	Ports	38
7.1.4.	Airports	39
7.2.	Current Rail Network Performance	39
7.3.	Current Road Network Issues	39
7.3.1.	Local Roads	39
7.3.2.	Overtaking Policy	39
7.3.3.	Truck Stops	39
7.4.	Adelaide–Horsham–Melbourne Corridor	40
7.4.1.	Nhil Trailer Exchange Project	40
7.4.2.	National Building Projects	40
7.5.	High Productivity Freight Vehicles (HPFVs)	40
7.5.1.	What is a High Productivity Freight Vehicle?	40
7.5.2.	The Use of HPFVs	41
7.6.	High Productivity Freight Routes	42
7.6.1.	Victoria	42
7.6.2.	South Australia	42
7.7.	Heavy Vehicle Movements into Portland	42
8.	Road Network Enhancements	44
8.1.	Arterial Roads	45
8.2.	Recommended Road Projects	45
8.3.	Princes/Henty Highway Heywood to Kingston	46
8.4.	Henty Highway (north of Heywood)	46
8.5.	Portland Ring Road (Henty Highway)	47
8.6.	Portland–Casterton Road (approximately 50km)	47
8.7.	Riddoch Highway (Penola to Mount Gambier)	47
8.8.	Penola Bypass	47
8.9.	Local Roads	48
8.10.	Timber Coupe Harvest Plans	49
9.	Rail Network Enhancements	50
9.1.	Enhancement of Rail Infrastructure	51
9.2.	Rail Routes	51

9.2.1.	Hamilton–Portland	51
9.2.2.	Heywood–Penola and Millicent Rail Line (via Mount Gambier)	51
9.3.	Assessment of Rail Potential	52
9.4.	Recommended Rail Projects	52
9.5.	Recent Developments	53
9.6.	Woodchips	53
10.	Green Triangle Region Regulatory Environment	54
10.1.	Regulatory Alignment Between SA & VIC	55
10.1.1.	Timber Transport Load Management Guidelines	55
10.1.2.	Cross Border Harmonisation of Truck/Trailer Regulations	55
10.1.3.	PBS Application Flowchart and Collaborative Assessment Process	55
10.1.4.	Freight Industry Code of Conduct	55
10.1.5.	Access Management Framework for Coupes	55
10.1.6.	Alignment of Vehicle Types/Specifications	56
10.1.7.	Over Dimensional Escorts	57
10.2.	Implementation of Regulatory Efficiencies	57
11.	Job Opportunities, Skills and Training	58
11.1.	Issues	59
11.2.	Labour Shortages and Requirements	59
11.3.	Training Facilities and Requirements	59
11.4.	Skills Shortages and Requirements	59
11.5.	Indigenous Employment Opportunities	60
11.6.	Skills Policy Context	60
11.6.1.	Securing Jobs for your Future – Skills for Victoria	60
11.6.2.	New Ways, New Engagement: A Skills Strategy for South Australia's Future	60
11.6.3.	Review of Skills and Workforce Development in South Australia: The Challenge for the Next Decade	61
12.	Socio-Economic and Community Development Opportunities	62
12.1.	Socio Economic Opportunities	63
12.1.1.	Population Change	63
12.1.2.	Provision of Services and Facilities	63
12.1.3.	Provision of Housing and Land	63
12.1.4.	Cross Council Collaboration	63
12.2.	Community Development Opportunities	64
12.2.1.	Community Consultation	64
12.2.2.	Communication Strategy	65
12.2.3.	School Bus Routes	65
13.	Implementation of the Freight Action Plan	66
	Acknowledgements	68
	References	69



1. Executive Summary

This Green Triangle Region Freight Action Plan is an outcome of the Green Triangle Freight Ministerial Summit of May 2008, convened jointly by the Victorian and South Australian Governments and which involved councils, the timber and freight industries and the Port of Portland.



The Summit identified the need for a plan to ensure the appropriate land transport infrastructure and an aligned regulatory environment are in place to accommodate the forecast increases in freight traffic in the region, particularly forest products to the Port of Portland, and possibly Penola, and mineral sands to the Port of Portland.

The Green Triangle Region has a diverse economic base with strong growth across a number of sectors, including timber, woodchip, mineral sands, dairy, meat processing, and electricity and gas production (see Figure 1). This Action Plan identifies strategic infrastructure investments needed to address emerging capacity constraints for the transport tasks associated with these various industry sectors.

Figure 1

Key industries in the Green Triangle Region



This Action Plan confirms that timber, woodchip and mineral sands flows are the largest commodity growth movements that need to be handled in the region during the next decade, with the hardwood timber freight task growing rapidly between 2009 and 2012 to reach up to 3.5 million tonnes per annum by 2012.

As a result, the Port of Portland will become the largest blue gum woodchip port in Australia. The Port and its related supply chain infrastructure must be capable of handling up to an additional 3.0 million tonnes of blue gum woodchip per year, compared to 0.5 million tonnes currently. This equates to an extra 75 ships through the Port every year.

With this massive freight task looming, this Action Plan outlines the freight transport demands and infrastructure needs in the Green Triangle Region of south-east South Australia and south-west Victoria and defines the actions that will be taken to address them.

These actions are in the following areas:

- road network enhancements;
- rail network enhancements;
- regulatory reform;
- job opportunities and skills and training;
- socio-economic; and
- community development.

Key Actions are:

- 1** The Commonwealth Government will partner the Victorian and South Australian Governments and councils in upgrading transport infrastructure in the Green Triangle Region. This partnership will help ensure the freight task for timber and other key commodities is successfully managed and opportunities are captured for export growth, regional prosperity, employment growth and improved community amenity.
- 2** The Victorian and South Australian Governments will continue to monitor the transport requirements of the Green Triangle Region's tourism, grain, dairy, meat, wine and other industries to ensure infrastructure investments within the Region address these requirements.
- 3** The Victorian Government will negotiate appropriate timing and funding arrangements with mineral sands companies for the upgrade of rail lines in north-west Victoria that will facilitate the efficient and cost-effective movement of mineral sands to Hamilton.
- 4** Consistent with existing policies of the two Governments, Victoria and South Australia will continue to recommend the inclusion of Princes Highway West (Colac to Mount Gambier via Portland) onto the national network by the Commonwealth Government.

Further, given the importance to the national economy, the Victorian and South Australian Governments recommend the Riddoch Highway (Mount Gambier to Keith) and the Henty Highway from Portland (Portland Ring Road) to Horsham be added to the national network by the Commonwealth Government.
- 5** Timber Coupe Harvest Plans will be completed by timber companies in consultation with councils, VicRoads and the South Australian Department for Transport, Energy and Infrastructure (DTEI), and will be provided to councils at least 12 months ahead of harvesting.
- 6** The Victorian Government recommends that the Australian Rail Track Corporation (ARTC)-leased Maroona to Portland rail line be added to the national network.
- 7** The Victorian and South Australian Governments recommend, should a decision be made to reopen the Mount Gambier-Heywood rail line and to also lease it to the ARTC (including the rail line north of Mount Gambier if this becomes viable), that it be added to the national network.
- 8** The Victorian and South Australian Governments will implement the following measures for cross-border regulatory alignment in the Green Triangle Region:
 - publication of common Timber Transport Load Management Guidelines;

- harmonisation of cross-border regulations for truck/trailer combinations;
 - development of a Performance-Based Standard application flowchart and collaborative assessment process;
 - release of a Freight Industry Code of Conduct; and
 - development of an Access Management Framework for Timber Coupes.
- 9** The Victorian and South Australian Governments and councils will continue to consult with the relevant agencies to ensure that job opportunities within the Green Triangle Region are maximised, and skills, upskilling and training issues, particularly in the timber industry, are adequately addressed to meet workforce requirements both in the immediate and long-term.
 - 10** The Victorian Government will finalise its Workforce Strategy for Freight Drivers in 2009 to support the freight and logistics industry in its workforce planning.
 - 11** The South Australian Government's Training and Skills Commission (TaSC) will continue work on the development of its five-year Skills and Workforce Development Plan, in consultation with Industry Skills Boards and regional, community and industry groups.
 - 12** The Victorian and South Australian Governments and councils will monitor the socio-economic issues associated with the blue gum timber industry and other industries in the Green Triangle Region, and ensure these issues are addressed through best practice mitigation and management measures (e.g. the use of the Intelligent Access Program for heavy vehicle regulation).
 - 13** Councils, in consultation with the Victorian and South Australian Governments, will review or develop strategic plans for key regional centres in the Green Triangle Region that face challenges and opportunities around projected population growth and freight movement on the transport network. This includes statutory planning provision for industrial activity precincts and appropriate buffers around residential areas in major centres such as Portland, Hamilton and Mount Gambier.
 - 14** The Victorian and South Australian Governments and councils will continue to consult with regional communities to ensure that social amenity and regional development opportunities are captured. Funding opportunities from the Commonwealth's Regional and Local Community Infrastructure Program and other funding sources such as the Victorian Small Towns Development Fund, Victorian Regional Infrastructure Development Fund and the South Australian Regional Consultative Committee should be developed.

The timing and phasing of the following actions is subject to a funding contribution from the Commonwealth Government.

- 15** The Victorian Government will maintain and enhance the capacity of the Warrnambool–Melbourne Rail Line to assist the movement of containerised dairy/meat products to the Port of Melbourne for export.
- 16** The capacity of major arterial roads, including the Princes Highway West (Heywood-Kingston), Riddoch Highway, Henty Highway and the Port of Portland Ring Road, will be enhanced to deliver productivity improvements and other benefits.
- 17** Selected Victorian arterial roads and bridges connecting to the Port of Portland that support movement of timber from plantations and other commodities will be upgraded for a staged trial of next generation High Productivity Freight Vehicles (HPFVs).
- 18** Arterial roads, including the Portland-Casterton Road, will also be upgraded as required to deliver productivity improvements and other benefits.
- 19** A Green Triangle Region local roads program will be established to assist Councils to upgrade local roads as needed between 2009 to 2014 to ensure the woodchip freight task is performed as efficiently as possible. The quantum of the program will depend on the level of Commonwealth funding for the Green Triangle package, and the timing of individual projects will depend on private sector contributions.
- 20** The Victorian and South Australian Governments will continue to progress cooperatively with the ARTC, Commonwealth and the private sector opportunities to increase rail's share of the national freight task through re-opening and standardising key lines in south-eastern Australia.
- 21** Handling facilities outside the Port of Portland precinct may need to be upgraded to meet the multi-modal freight task for timber and other products.

This Action Plan also highlights that \$8.7 billion worth of new investments will occur in the Green Triangle Region over the next three to five years, presenting enormous opportunities for the region. These investments will generate up to 5400 construction jobs, up to 1000 direct jobs in the blue gum timber industry alone and up to 1000 jobs in industries associated with the timber industry.

The Green Triangle Region will be an excellent platform for new, innovative initiatives in skills development and workforce planning. This includes the creation of new training and employment opportunities for indigenous Australians.

With these challenges and opportunities so great, the need for infrastructure investment in the Green Triangle Region is compelling.

Green Triangle Region Priority Infrastructure Projects – 2009 to 2014

(not in priority order and subject to a Commonwealth funding contribution)

Heywood – Kalangadoo (near Penola) Rail Line

Re-opening and gauge conversion of the railway line between Heywood, Victoria and Kalangadoo, South Australia, and the establishment of intermodal loading/unloading facilities at Penola and Portland and at sawmills in Mount Gambier.

Kalangadoo – Wolseley Rail Line (SA)

Re-opening and gauge conversion of the line between Kalangadoo and Wolseley in South Australia.

Victorian Bronze Rail Lines

(Bronze intrastate lines for mineral sands and grain)

Upgrading of intrastate rail lines between mineral sand mines in north-west Victoria and processing facilities at Hamilton in south-west Victoria, including upgrading of the Ararat – Maryborough and Manangatang – Robinvale lines.

Henty Highway – Port of Portland Ring Road

Improvements to the Port of Portland Ring Road, including three lane treatment into the Port; easing of camber of curve and bridge improvements at Madeira Packet Rd; intersection improvements at Portland – Nelson Rd, New St, Cashmore Rd and Princes Hwy; and rearrangement of Bridgewater Rd overpass to allow for 4.6m clearance.

Princes Highway West Upgrade (Heywood – Kingston and Henty Highway improvements, including Heywood intersection upgrade)

Includes additional overtaking opportunities, truck stops, the option to provide a service facility by commercial operator, shoulder sealing, bridge strengthening, Dartmoor – Hamilton Rd upgrades and Henty Highway intersection upgrades including the Princes/Henty Hwy interchange.

Penola Bypass

Upgrade of the north-west section of the Penola Bypass (Stage 2).

Riddoch Hwy Upgrades

Includes additional priority overtaking lanes and road widening between the Dukes Highway and the Coonawarra, Penola to Nangwarry and Nangwarry to Tarpeena.

Port of Portland Reveal and Transfer Capacity

Enhanced reveal and transfer capacity at the entrance to the Port of Portland to enable efficient discharge of bulk products. Further analysis will be done to determine the scope and timing of this capacity enhancement.

Warrnambool Rail Line Upgrade

(for dairy/meat export to Port of Melbourne)

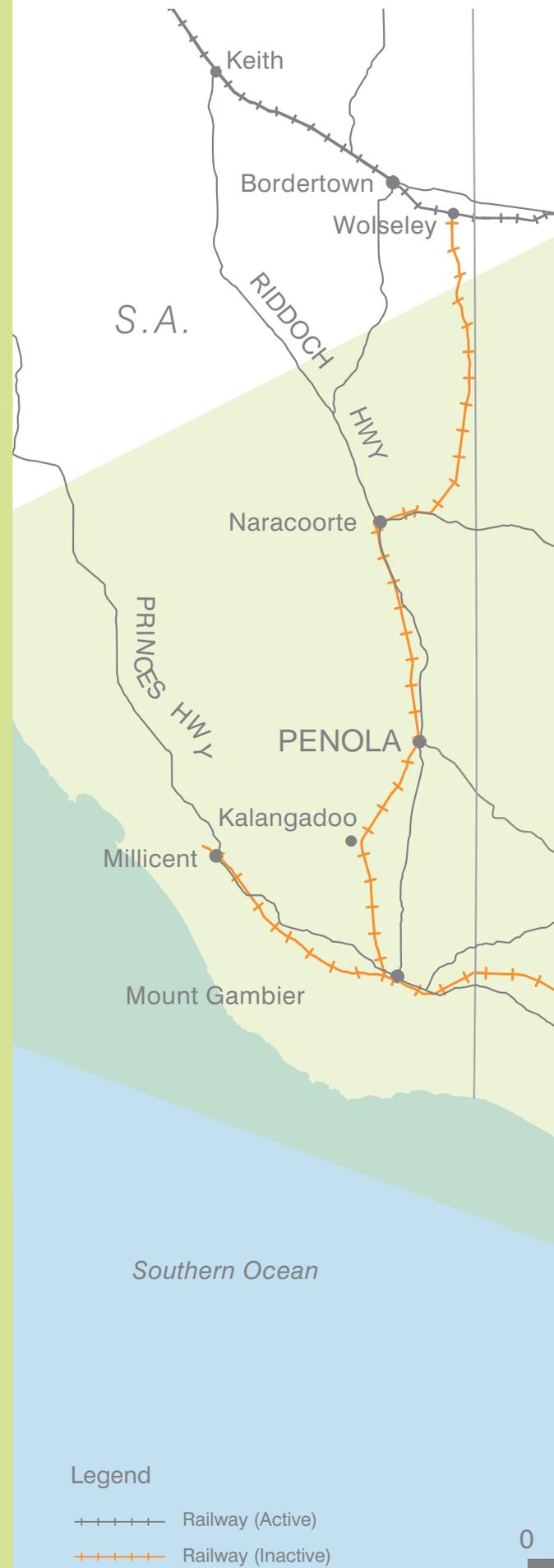
New and extended crossing loops and signalling between Geelong and Warrnambool to reduce delays and facilitate growth in both freight and passenger business.

Local Roads

Upgrades to local roads to be allocated on an as needs basis over the next four years as determined by timber flows.

Arterial Road Upgrades, including Portland – Casterton Road (dependent on timber flows)

Upgrades to minor arterial roads to accommodate current and future wood flows. Includes the Portland – Casterton Road. Funding for other minor arterial roads will be allocated on an as needs basis, as determined by timber flows.







2. Background

2.1. Plantations for Australia: 2020 Vision

In 1997 the Commonwealth and State/Territory Governments launched the strategy document “*Plantations for Australia: the 2020 Vision*”. This committed Australia to trebling the area of land devoted to plantation timber.

The key objective of the strategy was to enhance Australia’s wealth creation and international competitiveness through a sustainable increase in plantation resources.



2.2. Export/Trade Opportunities

Consistent with the Plantations for Australia 2020 Vision strategy document, a large increase in timber plantation activity has occurred over the past decade in the Green Triangle Region, making it home to the largest timber plantation area in Australia and constituting more than 17% of the forest plantation sector in Australia. This will result in a significantly greater freight task in this region from 2009 onwards when large-scale harvesting and chipping of blue gum plantations commences.

There has been a significant softwood plantation industry in the Green Triangle Region for 100 years. The harvesting and chipping of new blue gum plantations will result in a near doubling of the total volume of wood harvested (both softwood and hardwood) in the region from 1.5 million tonnes to 4.5 million tonnes per annum. It is estimated this will generate annual exports worth \$250 to \$300 million to the Australian economy.

There are five main locations in the world where plantation hardwood (blue gum) woodchips are produced:

- Green Triangle Region, South Eastern Australia;
- Albany, Western Australia;
- South Africa;
- Chile; and
- Brazil.

Japan is one of the highest per capita users of paper globally. Australia is consolidating its position as the major exporter of hardwood woodchips to Japan (around 50% of Japan's annual requirements). Australia has a competitive edge over other suppliers because it is close to Japan and shipping costs are significantly lower, compared to supply from Chile and South Africa. Supply to Japan from South Africa and Chile is also reducing because of fire damage, water restrictions and consumption from local pulp mills.



2.3. Green Triangle Regional Profile and Commodity Flows

The Green Triangle Region is an area in south-west Victoria and the south-east of South Australia encompassing Warrnambool, Horsham and Mount Gambier, and also includes the regional centres of Portland, Hamilton, Naracoorte, Bordertown, Millicent and Penola (see Figure 2). The name Green Triangle reflects the area, which is generally verdant green due to agriculture, pasture and timber plantations, and which has been mostly drought-free for 100 years.

The region covers around 6 million hectares, with a population of 146,000 people. Plantation forestry and forest products is the largest industry sector, contributing 16% of Gross Regional Product (GRP) and 12% of employment, with around 340,000 ha of hardwood and softwood plantations. The main regional economy sectors include:

- Plantation forestry
- Aquaculture
- Aluminium
- Wood processing
- Tourism
- Dairy
- Beef
- Wine grape production
- Transport
- Grain
- Winemaking
- Engineering
- Low Emissions Energy
- Fishing
- Mineral sands.

The Green Triangle Region is therefore one of Australia's more diverse regions with a widely based economy and substantial growth prospects.

To support this growth, the transport network must have sufficient capacity to manage both export-related freight tasks as well as the movement of machinery, componentry and other production inputs into the region.

Figure 2
Green Triangle Region



The Port of Portland, located within the Green Triangle Region, is a deep-water port which specialises in bulk commodities, particularly agricultural, forestry and mining products as well as aluminium and fertiliser. The Port was privatised in 1996. It currently has approximately 3.2 million tonnes in annual throughput, which is expected to grow to an estimated 7 million tonnes over the next 5–10 years. The export trade includes grain, woodchips, logs, aluminium ingots and livestock, while import commodities include alumina, liquid pitch and fertiliser products. The Port delivers \$1.5 billion into the regional economy each year.

2.3.1. Hardwood and Softwood Plantations

There is a diverse and expanding timber industry in the Green Triangle Region consisting of both hardwood and softwood forest growers and processors. Timber resource is sourced from sustainably managed plantations within the region.

Key timber industry companies operating or planning to operate in the Green Triangle Region include Auspine, Carter Holt Harvey, Kimberly-Clark Australia, Van Shaiks BioGro, South West Fibre, Timbercorp, ITC, Great Southern, AKD Softwoods, Green Triangle Forest Products, Hancock Plantations Victoria, Macquarie Bank, Forestry SA, Plantation Energy, Oji Paper, Nippon Paper, Midway Ltd, Marubeni and Mitsui.

The region's forestry industry has been established for more than a century, predominantly with softwood (*Pinus radiata*) plantations. The area planted to softwoods is stable at around 175,000 ha and timber destination is predominantly solid timber products, pulplogs, particle board and export woodchip.

Hardwood plantation operations began in 1988 with Tasmanian blue gum (*Eucalyptus globulus*) plantations for Kimberly Clark Australia's tissue manufacturing mill at Millicent and pulp mill at Tantanoola. More recent expansion has been driven by MIS investment and foreign investment by Japanese paper companies and trading houses. It is estimated that the area planted to hardwood plantations was 164,000 ha in 2008.

Figure 3 shows the distribution of the softwood and hardwood plantation resource within the Green Triangle Region. As can be noted, the softwood and hardwood plantations in South Australia tend to be concentrated whereas the Victorian hardwood plantations are distributed more widely throughout the region.

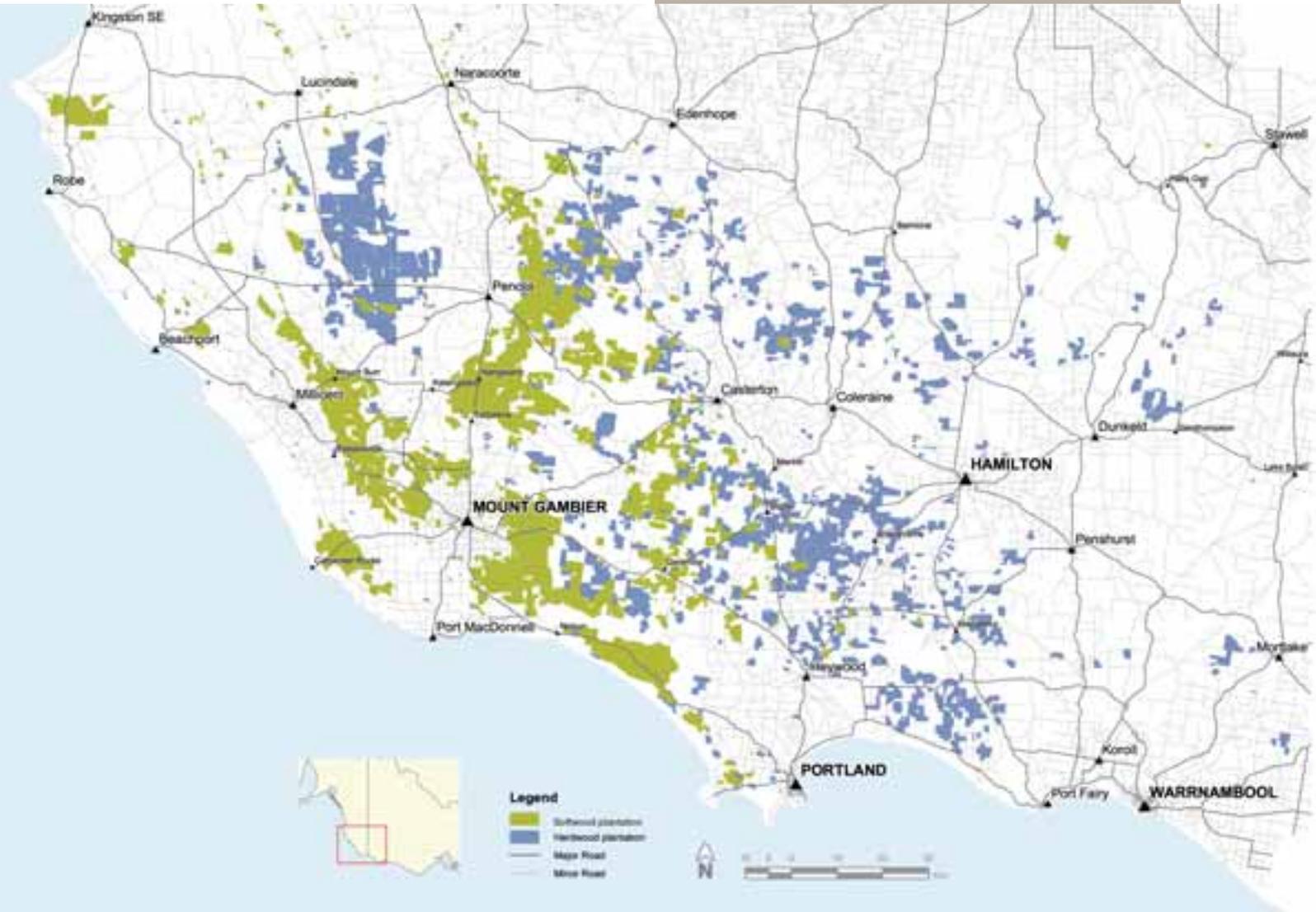
2.3.2. Mineral Sands

Iluka has a sequence of mining sites in Victoria and New South Wales that are expected to provide an ongoing mineral sand processing and export industry for at least 50 years.

Mineral sand mining and processing in the Murray Basin has been established since early 2002, with Iluka's mining operation at Wemen and mobile mineral separation plant near Mildura. A permanent mineral separation plant at Hamilton replaced the Mildura plant in 2005, and regular exports through the Port of Portland have now been established. Iluka also has an existing mine at Douglas and is currently developing a mineral sands mine near Kulwin in north-western Victoria, which is due to start mining in 2009.

There is potential for the Hamilton plant to process sands brought from South Australia by sea. Rail movements of containerised export mineral sands from Portland to Melbourne were also established recently.

Figure 3
Green Triangle Region Plantations



2007 Green Triangle Plantation Estate

Produced by: South East Resource Information Centre
 PO Box 3587 Mount Gambier SA 5290
 Produced for: Green Triangle Regional Plantation Committee
 Compiled: 10 January 2008
 Reference: 8004 (version 1)
 Datum: Geocentric Datum of Australia, 1994
 Projection: Universal Transverse Mercator

Plantation layer compiled December 2007 from data supplied by
 Green Triangle plantation growers.
 South Australian Road Network DEH, 2007.
 VicMap Transport Data © The State of Victoria, DSE, 2006.
 © No part of this map may be reproduced or published in any
 form without the express written permission of SERIC.

Source: SERIC, 2008



3. Introduction

3.1. Freight Action Plan Objectives

“A Freight Action Plan shall be developed to detail the actions necessary to enable the efficient movement of timber plantation products and other key commodities in the Green Triangle Region.”

JOINT MINISTERIAL STATEMENT
MAY 2008

3

3.2. Freight Action Plan – Approach Adopted

The Action Plan does this by identifying and 'mapping':

- (i) optimal use of the road, rail and port network;
- (ii) priority infrastructure improvements to the transport network;
- (iii) optimal deployment of next generation High Productivity Freight Vehicles (HPFVs); and
- (iv) land-use and social amenity issues.

The development of this Action Plan was guided by:

- (i) existing regional transport plans undertaken since 2005 by State Governments, councils and port authorities;
- (ii) advice from timber plantation companies on forecast yields, freight flows and preferred production methods (in-field chipping versus static systems);
- (iii) the proposed location of chip and pulp mills; and
- (iv) national reforms in the regulation of HPFVs, including Performance-Based Standards (PBS) and incremental pricing trials.

A Steering Committee was responsible for making recommendations to the Victorian Minister for Roads and Ports and the South Australian Minister for Transport. The Steering Committee comprised senior officials of the Victorian Department of Transport, VicRoads, the South Australian Department for Transport, Energy and Infrastructure (DTEI), Glenelg, Moyne, Southern Grampians and West Wimmera Shire Councils, the City of Mount Gambier, the Limestone Coast Regional Development Board and the South East Local Government Association (SELGA) of South Australia.

A Regulatory Efficiencies Taskforce was also established to identify and recommend the removal of cross-border regulatory barriers to enable the efficient and seamless movement of freight between Victoria and South Australia.

The Taskforce comprised Regional Managers and technical/regulatory officials from VicRoads, DTEI and technical staff from local government. The Taskforce recommendations were one of the inputs to this Action Plan.

Consultation was undertaken with timber plantation companies, the Port of Portland, road transport groups, the Australian Rail Track Corporation, and other private or public sector organisations, as required.

Wood flow data analysis was undertaken by the South East Resource Information Centre (SERIC) via the Green Triangle Regional Plantation Committee which coordinated the collection of data from the region's timber plantation growers. This data was then processed by SERIC into annual wood flow volume maps that indicated the likely tonnages being transported to processing points throughout the region, based on the existing road network. SERIC provided copies of these wood flow volume maps to the Steering Committee to assist with the analysis of the road and rail freight task within the region. Reference has also been made to strategies prepared by Timber Towns Victoria.

A Transport and Freight Analysis Report prepared by Sinclair Knight Merz (SKM), the SERIC data, the set of draft conclusions and recommendations considered by the Steering Committee, and the list of priority projects formed the basis for the development of this Action Plan.



4. Infrastructure Australia

Infrastructure Australia is an advisory body established by the Commonwealth Government in 2008 to help drive the development of a long-term, coordinated national approach to infrastructure planning and investment, focussing on transport, water, energy and communications.

Infrastructure Australia advises the Government on Australia's current and future infrastructure needs and priorities and infrastructure policy, pricing, financing and regulation.



In October 2008, projects identified in the Green Triangle Region Freight Action Plan were nominated by the Victorian and South Australian Governments for funding by Infrastructure Australia.

Funding infrastructure in the Green Triangle Region meets a number of Infrastructure Australia's strategic priorities, including:

- expanding Australia's productive capacity;
- increasing Australia's productivity;
- diversifying Australia's economic capabilities; and
- building on Australia's global competitive advantages.

Supporting submissions to Infrastructure Australia were also made by the Port of Portland, Victoria's Great South Coast Municipalities Group and South Australia's South East Local Government Association (SELGA) in partnership with the Limestone Coast Regional Development Board.

In December 2008, Infrastructure Australia released its Report to the Council of Australian Governments (COAG) detailing its preliminary audit of infrastructure projects seeking funding from the Building Australia Fund. The Green Triangle Project was one of 96 projects totalling \$197.4 billion from across Australia evaluated by Infrastructure Australia.

An announcement from the Commonwealth Government on which projects will receive funding from the first tranche of the Building Australia Fund (BAF) is expected by May 2009.

Other projects may be funded in later tranches of the BAF, consistent with strategic priorities identified by States as part of a pipeline of infrastructure investment.



5. Policy Context

The importance of providing appropriate transport infrastructure to meet the demands of the new export industries in the Green Triangle Region is recognised in key policy frameworks.



5.1. The Victorian Transport Plan

In December 2008, Victoria's Premier, the Hon John Brumby, MP, launched *The Victorian Transport Plan (VTP)* – a 12-year strategy of short, medium and long-term investment projects in Melbourne and regional Victoria.

The VTP includes a commitment by the Victorian Government to progress, in partnership with the Commonwealth and South Australian Governments, infrastructure projects identified in this Action Plan. This significant investment reflects the strategic importance of the Green Triangle Region to Victoria and the national economy.

The timing, sequencing and prioritisation of projects will depend on funding contributions from other parties, including the Commonwealth Government.

5.2. Freight Futures

In December 2008, the Victorian Government released *Freight Futures*, its strategy to drive the development of a sustainable freight network across the State.

Freight Futures addresses the significant challenge in dealing with an increase in the volume of freight generated from an expanding economy and a growing State population forecast to reach six million people by 2020.

Freight Futures is a companion document to *The Victorian Transport Plan*.

In addressing this challenge, *Freight Futures* sets a number of strategic directions, including the development of a Principal Freight Network, planning for growth in regional freight and improving planning for the 'last kilometre' of freight journeys.

Freight Futures also commits to a trial of next generation High Productivity Freight Vehicles (HPFVs), beginning with a priority staged trial in the Green Triangle Region targeting roads connecting to the Port of Portland to support the transport of timber from plantations to chip mills and for export.

In *Freight Futures*, the Victorian Government commits to using the Green Triangle Region model to roll out the development of Freight Action Plans for other regions facing particular freight challenges.

5.3. Victorian Ports Policy

5.3.1. Port Futures

Freight Futures flags the Victorian Government's intention to release a new policy for Victoria's commercial trading ports, *Port Futures*, during 2009.

The current policy and planning settings for ports embodied in the *Port Services Act 1995* and the *Victorian Ports Strategic Framework* have served Victoria's port system well over the past five years. These settings have provided a sound governance foundation and clear direction to enable all participants in the port system to plan their short to medium-term operations and investment strategies with confidence.

However, in the Government's view, it is now appropriate to review aspects of the current policy and planning frameworks to confirm existing settings and, where appropriate, make adjustments necessary to respond to new pressures and challenges which have emerged since 2004.

Port Futures will update and elaborate a number of aspects of the existing settings in the *Victorian Ports Strategic Framework*, particularly the ability of Victoria's port system to coordinate effectively with related freight network infrastructure servicing key international supply chains. *Port Futures* will address the need for stronger protections for ports in the Victorian planning system, to ensure that they are able to carry out their important trade and economic functions sustainably into the future.

5.3.2. Port of Portland Land Use Strategy (PLUS)

On 15 May, 2007, the Port of Portland Pty Ltd released a draft Port Land Use Strategy (PLUS). The draft PLUS highlights that the value of all exports through the Port of Portland is estimated to increase significantly within the next decade, injecting around \$33 million into the Green Triangle Region around Portland.

The draft PLUS also:

- identifies factors that may constrain the growth of the Port, including the limited supply of industrially zoned land near port facilities; constraints from non-port related uses; and erosion of separation buffers;
- raises the need for upgrades to the local and regional road transport network to manage the impacts of truck movements, larger trucks and new trucking activities;



- recommends a review be undertaken of the current provision of rail access into the Port to develop strategies for improvements that minimise conflict with projected heavy vehicle truck movements. It promotes the reinstatement of the Heywood–Mount Gambier rail line and recommends the Port of Portland continue to liaise with the Victorian and South Australian Governments and the timber industry; and
- identifies the potential need to establish a new berth in the Port to accommodate future growth in bulk movements, particularly hardwood woodchips.

Progression of this initiative will be closely considered with the Government's broader policy thinking in relation to transport and freight planning and included within a proposed *Port Futures* policy statement to be released in 2009.

5.4. Victoria's Timber Industry Strategy

Victoria's timber industry contributes approximately \$3 billion of the net value of Australia's timber industry. It also accounts for around \$699 million in exports annually, representing almost 30 per cent of Australia's total wood product exports.

The Victorian Government is currently developing a new *Timber Industry Strategy* for Victoria. The strategy will provide a comprehensive approach to maximising economic value for Victoria from the production and processing of timber in a socially and environmentally sustainable manner. The development of the *Timber Industry Strategy* has been a whole-of-government effort, involving regular consultation with industry, unions and the community. It is expected to be released in the first half of 2009.

The Victorian Government committed to develop the strategy as part of its *Moving Forward Statement* for regional Victoria. It will be developed within the Government's existing forest policies, such as *Our Forests Our Future*, and the Code of Practice for Timber Production.

The strategy will take into account recommendations made in the 2007 report of the Sustainable Timber Industry Council, and will also draw on a comprehensive industry analysis by URS Australia.

5.5. A Plan for Managing the Freight Transport for the South East/Limestone Coast Region of South Australia

This plan was produced in 2006 to guide the future development of the transport network in the south-east of South Australia, aimed at enhancing freight efficiency to the export ports and meeting the future needs of industry and the community.

The major focus of this plan is to assess the future transport needs of the timber industry, while also having regard to growth occurring in other sectors, including mineral sands, wine, horticulture, tourism and dairy. The plan is based on research data collected from the numerous transport studies undertaken in the region, confidential commercial reports provided by companies and other organisations, and input from key industry sectors, including the forestry industry.



6. The Dimensions of the Freight Task

Timber, woodchip and mineral sands flows are the largest commodity growth movements that need to be handled in the region during the next decade, with the hardwood timber freight task growing rapidly between 2009 and 2012 to reach up to 3.5 million tonnes per annum by 2012.



Heavy vehicles will be a significant means by which this task is performed. To facilitate the movement of heavy vehicles, upgrades to arterial and local roads will be required to improve safety and efficiency. There will also need to be effective and timely regulatory approval processes through VicRoads and the South Australian Department for Transport, Energy and Infrastructure (DTEI).

A large proportion of heavy vehicle movements will be to the Port of Portland. It is estimated that, when peak hardwood timber flows are reached in 2012, there will be the equivalent of one truck every five minutes (approximately 280 per day) arriving at the Port of Portland, and more in a normal grain year.

There is a significant opportunity for rail to perform part of the freight task in the Green Triangle Region. This includes bulk movements of woodchips for export, logs to processing facilities and containerised pulp products. This would help deliver a number of key Commonwealth and State transport policy objectives, including reducing greenhouse gas emissions, increasing rail's share of freight movements (especially port related), improving road safety, and creating an enhanced business environment for rail operators and the Australian Rail Track Corporation (ARTC).

Other transport movements – including those relating to dairy, agricultural products, horticulture, viticulture, meat processing, one-off construction, the oil/gas industries, wind energy and tourism – represent significant value-adding activity in the region. Growth in these sectors can be addressed by targeted infrastructure investments and regulatory approvals, and will be supported by infrastructure improvements proposed in this Action Plan.

Improvements to the transport network provide the opportunity to enhance the productivity of exports and maximise the return to the national economy. All three levels of Government are key in achieving this return.

ACTION

The Commonwealth Government will partner the Victorian and South Australian Governments and councils in upgrading transport infrastructure in the Green Triangle Region. This partnership will help ensure the freight task for timber and other key commodities is successfully managed and opportunities are captured for export growth, regional prosperity, employment growth and improved community amenity.



6.1. Timber and Woodchip Flows 2009 – 2018

Figure 4 shows the anticipated timber and woodchip flows within the Green Triangle Region between 2009 and 2018. Note the two well-utilised routes between Mount Gambier and Portland and the significant quantities originating from and around Millicent and Penola.

As a consequence of this work, there are some gaps in the existing network. Freight flows will dictate the prioritisation of road and rail projects.

This map does not reflect the likely changes in woodchip flows should the Penola Pulp Mill proceed, as outlined in Section 6.5.

6.2. Hardwood Harvesting Practices

There are two main approaches to hardwood timber harvesting and chip production: infield chipping and centralised chipping at a static chip mill.

Timbercorp favours infield chipping, but the other large timber companies favour centralised chipping. Great Southern is considering developing a chip mill south of Heywood. South West Fibre, a joint venture between Midway and Mitsui Bussan Woodchip Oceania Development, is building a facility at Myamyn.

Figure 4

Projected Woodchip Flows 2009-2018

There are a number of scenarios as to how timber volume flows may occur. The map below is an example of one of these many scenarios. All scenarios reinforce the need for upgrades to key arterial roads and some local roads in the region and also the potential for the use of rail.

*This map does not reflect the likely changes in woodchip flows if the Penola Pulp Mill proceeds, as discussed in Section 6.5.
Source: SERIC, 2008*



© No part of this map may be reproduced or published in any form without the express written permission of SERIC.



6.3. Harvesting Scenarios

Figure 5 shows the woodchip volume forecasts in a given year between 2007 and 2020, with a very large peak in 2010 and 2011. Harvesting within this timeframe is not essential and there may be shortfalls of the required labour and machinery necessary for harvesting, which will most likely prevent quantities greater than approximately 4-4.5 million tonnes from being harvested in a given year.

When the potential shortfall of labour and equipment and machinery is taken into consideration, the graph in Figure 6 shows a more likely harvest volume pattern, where harvesting is smoothed to levels where available labour and machinery can cope with the volumes.

6.4. Mill Investments

New production facilities worth more than \$80 million are under construction or planned in the Heywood/Portland and Mount Gambier region as a result of value-adding opportunities generated by the blue gum industry.

A static woodchip mill is currently being constructed at Myamyn, approximately 15 km north of Heywood in Victoria. The project, expected to be completed in July 2009, will cost over \$30 million and is one of the first significant investments in blue gum processing in the Green Triangle Region.

The proponent of the woodchip mill, South West Fibre Pty Ltd, is a joint venture between Midway Ltd of Geelong (51%), and Mitsui Bussan Woodchip Oceania Pty Ltd (49%). The company has been exporting blue gum chips via the GrainCorp Portland terminal since 2006 (as Mitsui), and in 2008 harvested and sold in excess of 300,000 tonnes to both export and domestic markets. Annual export volumes will dramatically increase upon completion of the Myamyn static mill.

Harvesting and processing to date has been via infield chipping. South West Fibre Pty Ltd contracts five crews involved in harvesting and chipping, employing over 50 people in processing and transport.

It is expected that the Myamyn chip mill will have about 1.3 million tonnes per year processing capacity, and when combined with infield operations, will deliver up to 1.5 million tonnes of woodchip total throughput.

South West Fibre has also received local government approvals to construct a rail siding at Myamyn. Once constructed, this facility would enable rail freight of logs to the Myamyn mill from throughout the Green Triangle Region. The siding could also facilitate log transport from Myamyn to the Port of Geelong where significant scale woodchip processing and loading facilities already exist. This infrastructure once completed would provide invaluable surge capacity should planned facilities at the Port of Portland be delayed, or to cater with surplus volume in peak years.

Figure 5

Woodchip Volume Forecasts

Source: Growth of Blue Gum Harvesting and Haulage, J Lambert, Woollybutt P/L, 2004

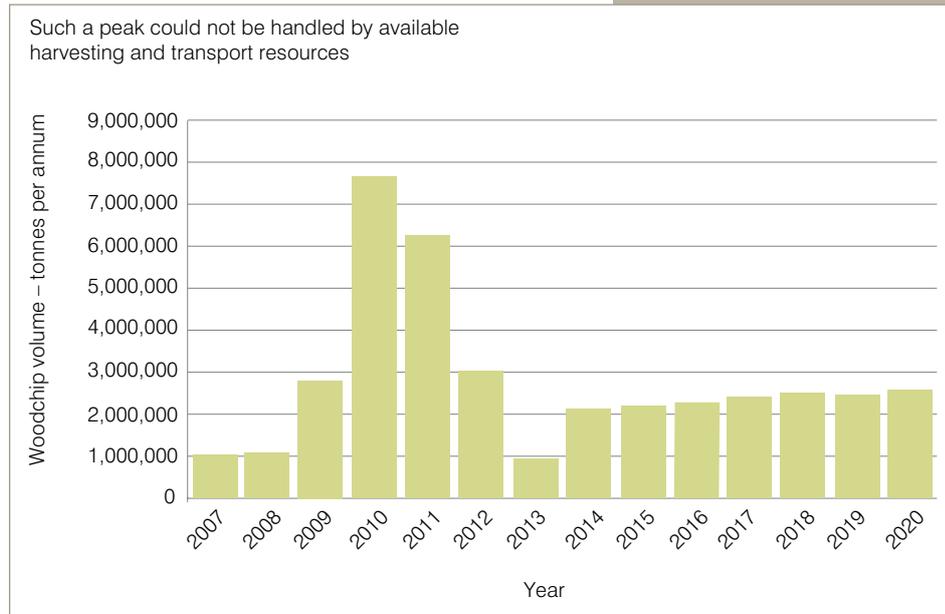
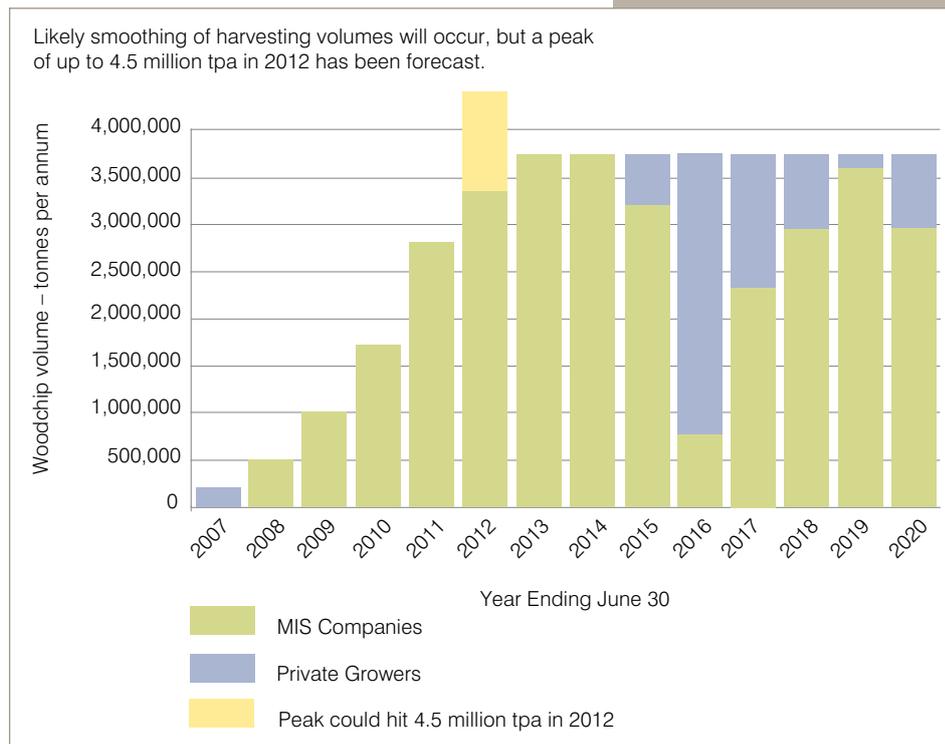


Figure 6

Possible Smoothing of Harvest Volumes

Source: SKM based on Growth of Blue Gum Harvesting and Haulage, J Lambert Woollybutt P/L





6.5. Proposed Penola Pulp Mill

Protavia has proposed a pulp mill at Penola, with an estimated output of 750,000 tonnes of pulp per annum, likely to be transported by rail to Adelaide (or Melbourne) via the disused broad gauge rail line from Penola to Wolseley, to join the standard gauge Melbourne-Adelaide main line. If this comes to fruition, the Penola-Wolseley line would require gauge standardisation and reopening. In order to produce 750,000 tonnes of pulp per annum, it is anticipated the mill would require around 1.5 million tonnes of logs/chip and a further 200,000 tonnes per annum of hydrogen peroxide, most likely to be sourced from New Zealand and railed to Penola from Melbourne.

This proposal is awaiting financial close. Should the pulp mill development proceed, an estimate of anticipated woodchip flows and tonnages is shown in Figure 7.

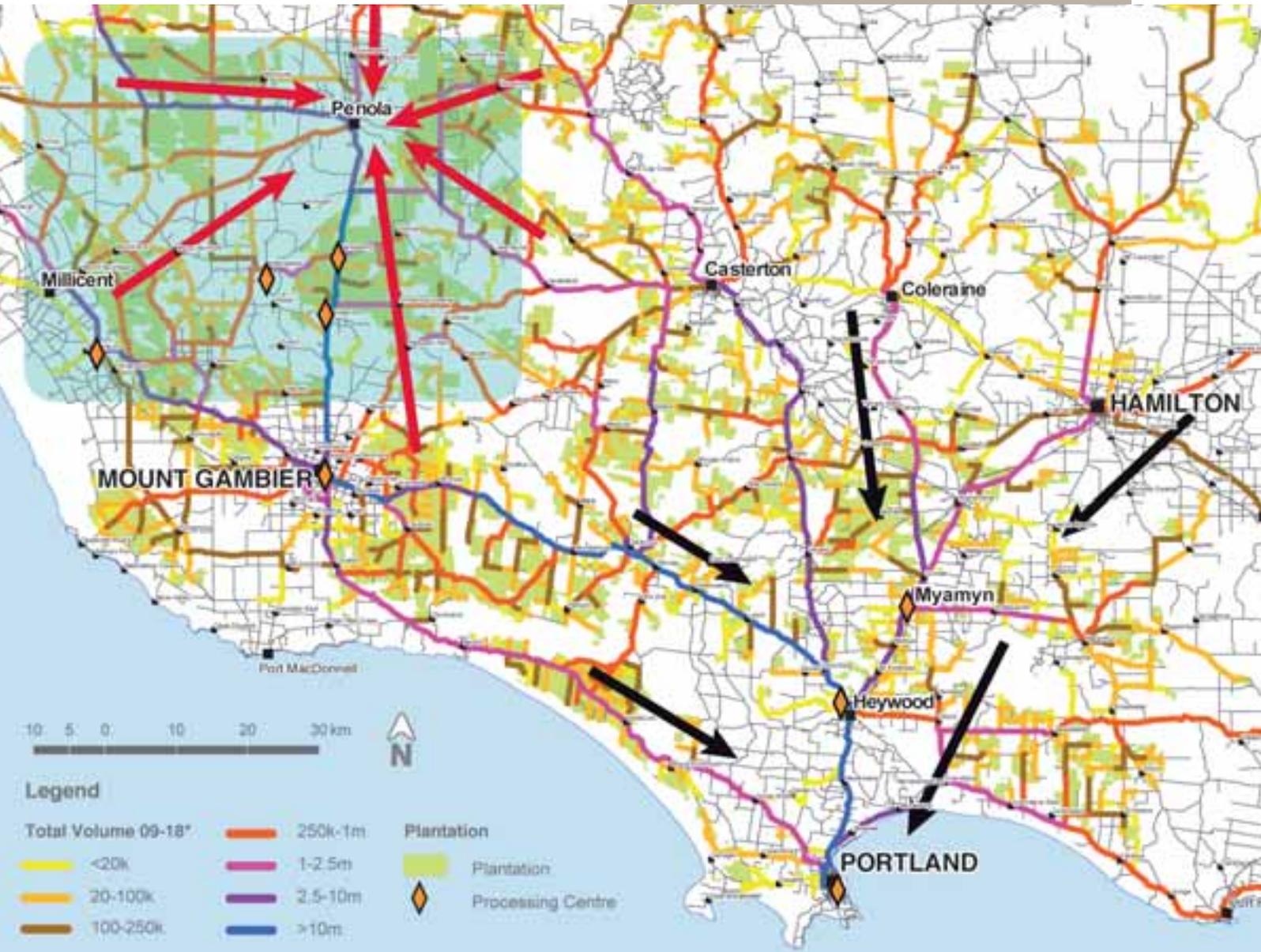
If the proposed pulp mill at Penola development proceeds, flows of up to 1.5 million tonnes of timber and or woodchip to this site, and around 750,000 tonnes of export pulp from the site are likely. This would substantially increase demands on roads to Penola, as the source of the hardwood would not only be to the west of Penola, but also from plantations in Victoria. Rail transport of containerised pulp (to Adelaide or Melbourne) is generally more cost effective than road.

However, the availability of this timber for harvesting is staggered, as the lead time from planting to harvesting is anticipated to be between 8-12 years, with 10 years regarded as ideal. If the Penola pulp mill was operating above its expected capacity, it is highly likely that timber would be sourced from other plantations to the east of Penola, including across the Victorian border. There are vast hardwood plantations located on the Victorian side of the border that are closer to the proposed Penola Mill than other plantations to the west of Penola. This would extend the potential catchment area of the Penola mill further eastwards from the blue shaded area in Figure 7, towards Casterton. This could influence woodchip flows to Portland.

Should the Penola Pulp Mill proceed, road and rail infrastructure between Myamyn and Penola would be used to service the requirements of the mill.

Figure 7
 Anticipated Woodchip Flows
 (With Penola Pulp Mill)

Source: SKM based on SERIC 2004





6.6. Grain, Dairy and Mineral Sands

The Green Triangle Region has a diverse economic base with strong growth across a number of sectors. For example, investments worth approximately \$6 billion are occurring in the resources sector, with gas-fired energy plants being built at Mortlake and Orford and one of the largest wind farms in Australia under construction at Macarthur in Victoria's south-west, and similar projects are planned near Mount Gambier and Millicent.

This Action Plan identifies strategic infrastructure investments needed to address emerging capacity constraints associated with the above transport tasks. These include:

Dairy/Meat – upgrades to the Warrnambool–Melbourne Rail Line for the movement of containerised products to the Port of Melbourne for export.

Grain – as a result of recent investment decisions by the Victorian Government and the ARTC, key grain lines will be upgraded in south-west and north-west Victoria. These include the Maroona–Portland line, the Hopetoun–Murtoa line, Ouyen–Pinaroo line, Sea Lake–Inglewood line and Quambatook to Inglewood.

Mineral Sands – the road and rail upgrades proposed to assist woodchips and grain will also assist the transport of mineral sands for processing at Hamilton and exporting from the Port of Portland.

6.6.1. Grain

Climate change is contributing to growth in grain-growing activity in the Western District of Victoria, with this region attracting an increasing share of cropping compared to the Wimmera and Mallee regions. There are also large areas of cropping located in the mid and upper areas of south-eastern South Australia that produce wheat, barley and canola.

Grain and canola is mostly moved by road to processing plants, although some export grain is road hauled to silos and then by rail to export ports, including Portland, Melbourne, Geelong and Adelaide. Existing arrangements are generally satisfactory for present volumes, and major projects have not been identified. The Portland grain terminal is limited in its ability to handle longer trains due to space constraints.

6.6.2. Dairy

South-west Victoria and the Limestone Coast of South Australia are Australia's fastest growing dairy regions and produce nearly one quarter of the national milk output. In south-eastern South Australia, dairy industry production has almost trebled to 300 million litres per annum since 2000. This trend is set to continue because of high rainfall (particularly compared to other traditional dairy regions of Australia) and the availability of farm land. The export retail value of dairy production in the Warrnambool region alone is worth an estimated \$4.8 billion with up to 7,200 people in Western Victoria employed in the dairy industry.

There are a number of dairy processing sites in the region, including Murray Goulburn's large Koroit factory, Kraft at Suttontown, Australian Cheese Company Pty Ltd (a new joint venture by Warrnambool Cheese and National Foods), Warrnambool Cheese and Butter's Allansford and Mil Lel sites, and Fonterra's Dennington plant near Warrnambool. Dairy industry transport tasks in this region are undertaken primarily by road and also via the Warrnambool–Melbourne rail line. Transport tasks are principally:

- milk collection from farms; and
- transport of whole milk and manufactured dairy products from factories to major consumption centres and export ports.

Milk collection from farms is exclusively by road, and the majority of movements to Melbourne are also by road, although some containerised products use the Warrnambool–Melbourne rail line.

Dairy industry volumes have historically increased by around 2% per annum, through increasing herd productivity and limited increases in land devoted to dairy. This growth rate has reduced to a stable pattern in the past few years, with drought the main stated cause. Transport infrastructure projects in recent years have focussed on safety, including better signage and warning lights for crossing locations and grade separated crossings on major roads.

Due to climate change and the area's reliable rainfall, south-west Victoria and the south-east of South Australia will become increasingly attractive for investment for the dairy processing sector.

6.6.3. Mineral Sands

Victoria's mineral sands production is set to increase significantly from 2009, with an additional 850,000 tonnes per annum and a 50-year supply of heavy mineral concentrate derived from the Murray Basin region. This will represent a four-fold increase in concentrate currently processed at the Hamilton separation plant.

Iluka's projects in the Murray Basin include the existing \$284 million Douglas mine, mineral separation plant near Hamilton, and a \$209 million project near Ouyen in north-west Victoria that is in the planning phase, and which is expected to generate 250 jobs during construction and 130 ongoing jobs. The Ouyen mine is expected to have a 13-year operating life. Astron's proposed \$93 million Donald project will create about 75 direct jobs and 290 flow-on jobs during its 25-year life. This project is in the final stages of an Environment Effects Statement (EES) process.

Iluka is also developing a mineral sands mine near Kulwin in north-western Victoria, which is due to start mining in 2009. The mine life is expected to be 5.5 years and operating continuously to extract around 2.5 million tonnes of heavy mineral concentrate, equating to approximately 450,000 tonnes per annum over the life of the mine. Once this deposit is exhausted, Iluka's operations are anticipated to relocate to Ouyen between 2011–2014, and then to deposits at Euston in New South Wales from 2014.

Iluka already undertakes mining of mineral sands at Douglas that are transported by road to Hamilton for processing. Bulk mineral sands are roaded to Portland for export, and smaller volumes of containerised mineral sands are exported through Melbourne. Rail movements of containerised export mineral sands from Portland to Melbourne were established recently.

Figure 8

Iluka Mining Operations in the Murray Basin

Source: www.iluka.com



Iluka has expressed strong interest in utilising rail to transport mineral sands in containers from the mining sites to the separation plant in Hamilton, with transport plans including:

- Mine to Hamilton:
 - Douglas – presently road likely to remain given shorter distance.
 - Kulwin – presently road, but examining standard gauge rail from Hopetoun. This has been substantially facilitated by the Victorian Government’s recent decision to upgrade this line from Hopetoun to Murtoa.
 - Ouyen – standard gauge rail option from Hopetoun under consideration.
 - Euston – considering broad gauge rail from Robinvale, transfer boxes to standard gauge at Maryborough to Hamilton.
- Hamilton to Portland:
 - Road (mainly due to short distance and difficult rail access to Port of Portland).
 - Hamilton/Portland to Melbourne.
 - Standard gauge rail option.

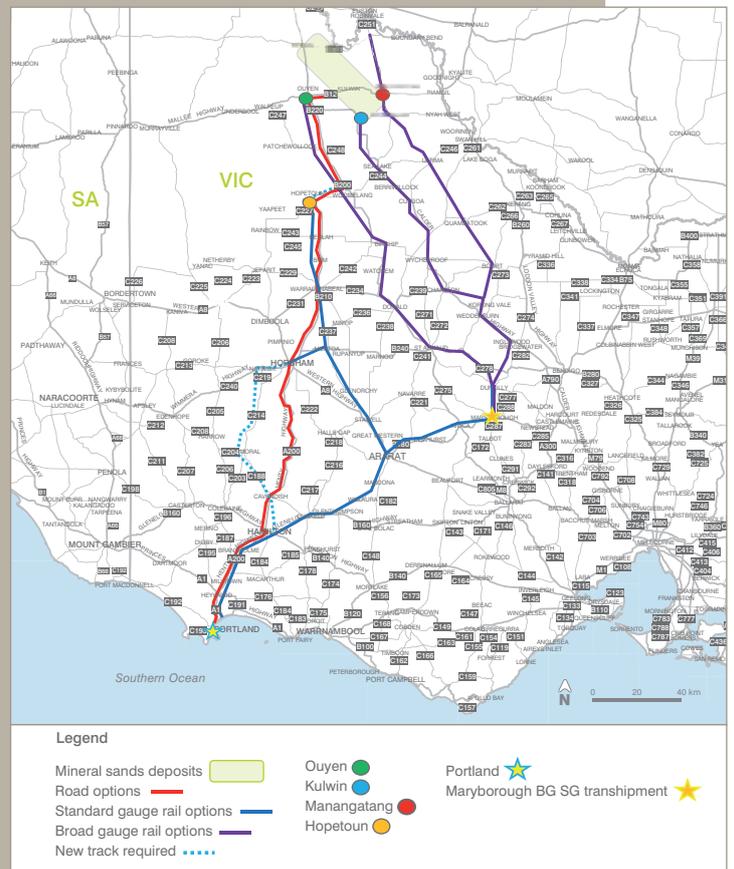
These options are shown in Figure 9.

Container packing facilities are planned for the Hamilton mineral separation plant, and the rail transport will then originate in Hamilton.

Figure 9

Mineral Sands Transport Arrangements

Source: SKM based on SERIC 2004





6.7. Other Industries

6.7.1. Portland Aluminium Smelter

The Portland Aluminium Smelter operated by ALCOA is located just south of the city of Portland and produces approximately 356,000 tonnes of aluminium a year. ALCOA is Victoria's largest exporter and most of the aluminium produced at Portland is exported to Asian markets. The smelter receives over 676,000 tonnes of alumina per year which is shipped to the smelter from Western Australia. Approximately two tonnes of alumina is required to produce one tonne of aluminium. The smelter provides more than 640 direct jobs as well as a contractual workforce of around 200 and injects over \$100 million into the regional economy each year.

6.7.2. Meat Processing

South-west Victoria and the south-east of South Australia have a significant meat and livestock industry. Midfield Meats operates a major processing and export plant at Warrnambool. Recent investment by the company has resulted in further expansion of its processing facilities, including the use of leading-edge technology and a possible bio-diesel production facility. Other processing plants in the Green Triangle Region include Tatiara Meat Company at Bordertown, Australia's largest exporter of chilled lamb, and Teys Bros at Naracoorte, the largest Australian-owned and the nation's second largest beef processing company with an annual turnover of \$1.2 billion. In excess of 1000 people are directly employed at these meat processing plants.

6.7.3. Gas Production

Several large gas fields are located in the Otway Basin offshore between Portland and Port Campbell, including the Minerva and Casino fields and the Thylacine and Geographe fields that comprise the Otway Gas Project. The Otway Gas Project is the largest development in the area and over the life of the project is expected to supply 950 billion ft³ of raw gas, 885PJ of sales gas, 1.2 million barrels of condensate and 1.7 million tonnes of LPG.

6.7.4. Electricity

There are several electricity generating projects under consideration in the Green Triangle Region, including Origin Energy's 1000 MW natural gas project at Mortlake, AGL's 329 MW wind farm with 183 turbines near Macarthur and Hot Rock Limited's 50 MW geothermal project at Koroit. The South Australian State Government has also recently granted the State's first wave power licence to Carnegie Corporation to trial its wave power technology at a site along the Limestone Coast near Port MacDonnell. While these projects will create construction-related transport activities, none is considered likely to require specific road upgrade projects, other than works associated with site access.

6.7.5. Viticulture

The Coonawarra wine region located in south-east South Australia is recognised as one of Australia's premium wine regions, producing about 20% of Australia's premium wine with plantings comprising about 7% of the South Australian wine industry vineyards.

6.7.6. Horticulture

Horticulture covers a wide variety of production, including fruit and vegetables as well as specialised broad acre crops. Large volumes of potatoes are also grown in the region, with around 100,000 tonnes each year processed into french fries at the Safries (McCain) Plant south of Penola. Transport tasks are mostly handled by road, although there are some containerised movements by rail, particularly to Melbourne and Adelaide.

6.7.7. Fertiliser

Fertiliser is sourced from plants at Portland and Geelong, and much is backhauled by the same vehicles delivering grain to processors and exporters.

6.7.8. Seafood

Seafood volumes are relatively small, with the importance of this industry coming more from high value than large volumes. Nearly all seafood is moved in temperature-controlled vehicles by road.

6.7.9. Waste Timber

Biofuel investments worth \$50 million are proposed for the Green Triangle Region in the form of two wood pellet mills – one mill earmarked to be established at Heywood and another mill at Mount Gambier. These mills would produce 250,000 tonnes of densified biomass fuel pellets a year from plantation timber harvest residues which would be exported to Europe to serve the biofuel market. The pellets could be exported through the Port of Portland, utilising the rail line adjacent to the mill.

Large volumes of waste and timber residues are also currently converted into landscaping and nursery soil blends at sites at Wandilo and Mount Gambier, as part of the activities of the Van Schaik Group and Nu-Erth.

ACTIONS

The Victorian and South Australian Governments will continue to monitor the transport requirements of the Green Triangle Region's tourism, grain, dairy, meat, wine and other industries to ensure infrastructure investments within the Region address these requirements.

The Victorian Government will maintain and enhance the capacity of the Warrnambool–Melbourne Rail Line to assist the movement of containerised dairy/meat products to the Port of Melbourne for export.*

The Victorian Government will negotiate appropriate timing and funding arrangements with mineral sands companies for the upgrade of rail lines in north-west Victoria that will facilitate the efficient and cost-effective movement of mineral sands to Hamilton.

*Subject to a Commonwealth Government funding contribution.

6.7.10. Tourism

Tourism is an increasingly important industry in the Green Triangle Region, with much activity focussed on the coast, rivers and national parks. Coastal roads are important in accommodating tourist traffic, and minimising heavy vehicle traffic on the routes with highest tourist activity will help enhance the tourism experience and safety. In this context, the Nelson–Portland road and towns in the Green Triangle Region where heavy vehicle traffic causes congestion and amenity concerns are the highest priority.

Provincial cities such as Portland, Hamilton, Warrnambool and Mount Gambier are experiencing strong population growth because of their role as economic hubs for hinterland regions. Tourism is in a growth phase because of the popularity of niche events such as the Port Fairy Folk Festival and tourism activity associated with the Grampians National Park, Great Ocean Road–Princes Highway West Corridor, the Limestone Coast, Coonawarra wine region and the Twelve Apostles Marine National Park.



7. Green Triangle Region Transport Network

7.1. Existing Transport Network

7.1.1. Roads

There are three classes of arterial roads (A, B and C) in Victoria and South Australia, with Class A carrying the major freight movements.

All arterial roads in the Green Triangle Region in both States are open to B-Doubles operating at Higher Mass Limits. In addition, a number of key local roads are also open to B-Doubles in both States.

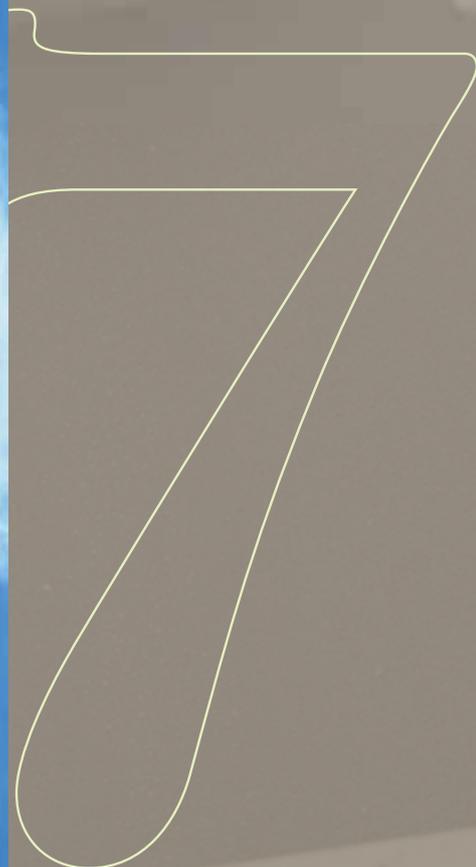


Figure 10
Green Triangle Road Network





Figure 11

Rail Map of Area – South Australia and Victoria

Source: Australian Rail Maps (<http://www.railmaps.com.au/>)

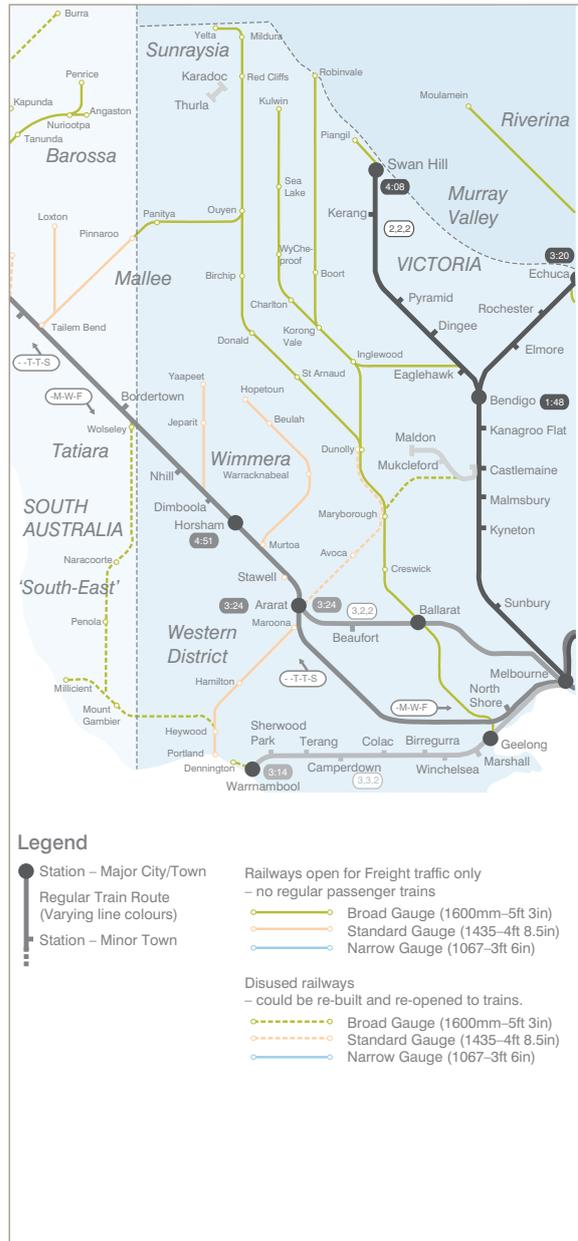
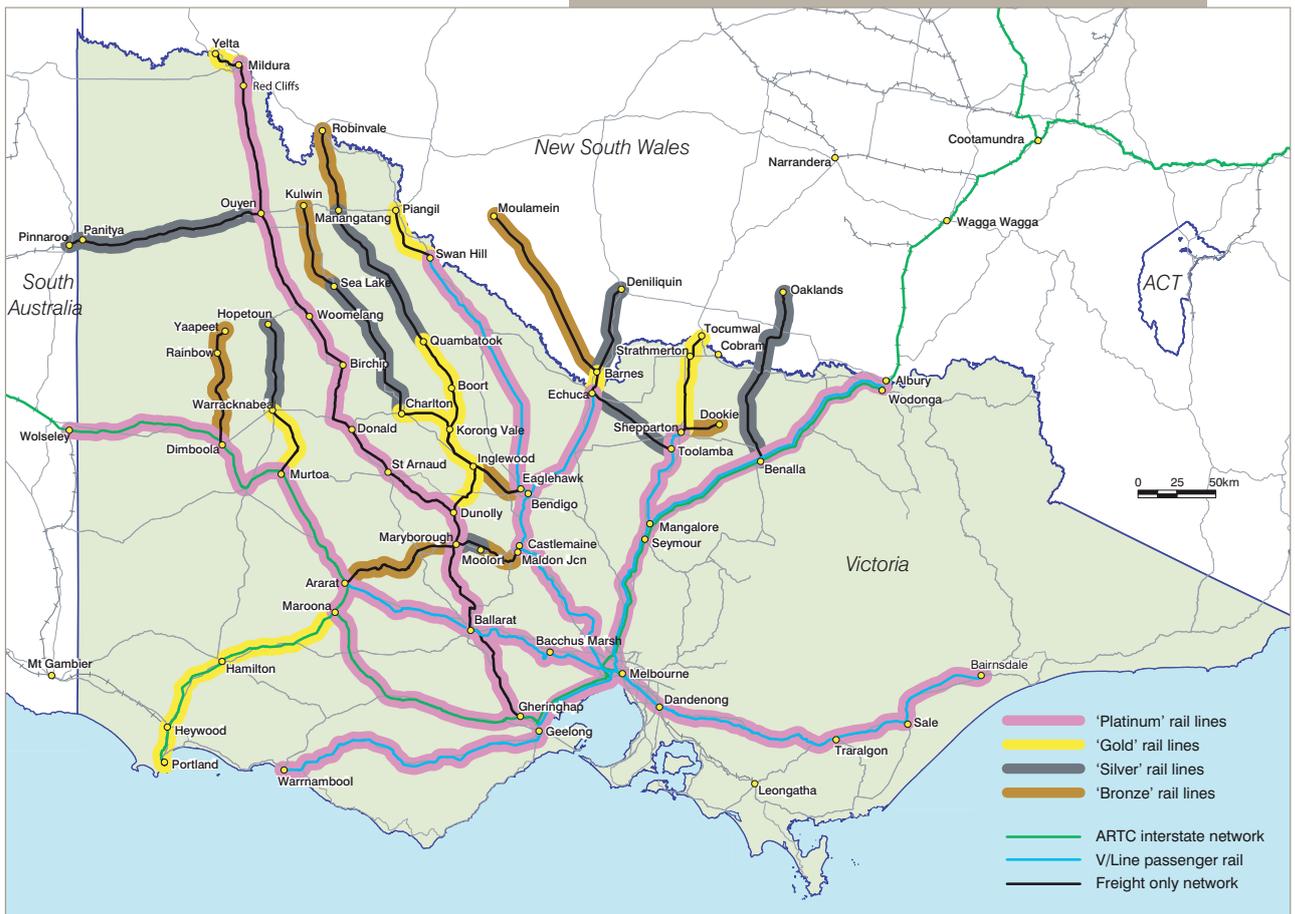


Figure 12
Victorian Rail Network

Source: www.railfreightalliance.com/files/Switchpoint.ppt



7.1.2. Rail

There are three railway lines of main interest, as shown in Figures 11 and 12:

- **Hamilton to Portland:** a standard gauge line, with management responsibility and lease arrangements recently transferred to the ARTC, and currently used for freight.
- **Heywood to Millicent via Mount Gambier:** this broad gauge line is no longer in operation. It is owned by VicTrack Access (Victorian section) and the South Australian Department for Transport, Energy and Infrastructure (South Australian sections).
- **Mount Gambier to Wolsley (near Bordertown):** this broad gauge line has not been used for freight operations since 1995, when it was isolated by gauge standardisation of the Melbourne–Adelaide main line. It is also owned by the South Australian Department for Transport, Energy and Infrastructure.



7.1.3. Ports

A number of ports are located along the coast of the Green Triangle Region, including the strategically important port at Portland. The Port of Portland and Port of Geelong are the only two deep water ports between Melbourne and Adelaide. While Portland services most commodity products from the Green Triangle Region, Geelong is increasingly servicing bulk volumes of grain, woodchips and fertiliser from the region. Smaller ports servicing the fishing and recreational boating industries include ports at Warrnambool, Port Fairy, Port MacDonnell, Carpenter Rocks, Beachport, Robe and Kingston.

Port of Portland

The Port of Portland is an international gateway for the Green Triangle Region, with annual trade of approximately 3.2 million tonnes (over \$1.3 billion in value) in 2008. The Port provides an export gateway for the region's industry. Current export trade through the Port includes grain, woodchips, logs, aluminium ingots and livestock, with imports including alumina, petroleum coke, wind tower components and fertiliser products.

As a result of the significant increase in blue gum woodchip production, the Port will become the largest blue gum woodchip port in Australia.

Plantations within the Green Triangle Region will yield approximately 4.5 million tonnes of export woodchip – including an additional 3.0 million tonnes per year of blue gum chip by 2012. Both the Port of Portland and GrainCorp are planning infrastructure developments to service this additional volume. Supporting supply chain infrastructure (roads and rail) must be capable of handling all volumes presented to the Port for export.

Demand for plantation hardwood chip is strong, with Japanese pulp and paper companies, the major customers, demanding the commodity to produce high-quality paper products. These companies are negotiating contracts to secure woodchips.

Up to \$100 million has or is planned to be invested in infrastructure at the Port over the five-year period 2005 – 2010. This includes:

- Iluka's Mineral Sands Facility (completed 2007); and
- GrainCorp Blue Gum Facility upgrade (to be completed 2010); and
- ITC/Great Southern/Timbercorp Hardwood Chip Facility.

In 2008, the Victorian Government worked with the Port of Portland, GrainCorp, the timber industry and Glenelg Shire Council to ensure that all appropriate planning, traffic management and environmental approvals were in place to allow for the use and development of woodchip storage and handling facilities at the Port to meet forecast woodchip trade demand, including relevant approvals for both the existing GrainCorp facility and the Port's new proposed facility.

Existing facilities within the Port precinct include a large commodity storage facility owned and operated by GrainCorp under a long-term lease. This facility can be used for grain and is also currently being used to store and handle softwood woodchips.

Rail receipt at the Port is outdated and needs upgrading if export product is to be received at the Port by rail. This upgrade would support up-country rail upgrades targeting Portland-bound commodity volumes. The most suitable location for a new rail receipt facility is at the entrance to the Port precinct on predominantly Crown-owned land.

7.1.4. Airports

Key airports located in the Green Triangle Region with regular passenger services include Portland, Hamilton and Mount Gambier. Warrnambool Airport also serves as a land base for access to off-shore oil/gas facilities in the Otway Basin.

7.2. Current Rail Network Performance

The increased demands from new production associated with woodchip flows, and to a lesser extent mineral sands, are likely to create capacity challenges in the transport network.

In Victoria all Gold Lines have been funded for upgrade, including the Maroona-Portland line, which has been transferred to the ARTC, as have the majority of Silver Lines, as indicated in Tim Fischer's *Rail Freight Network Review*. Silver Lines to be upgraded are: Benalla–Oaklands; Quambatook–Manangatang; Charlton–Sea Lake; Warracknabeal–Hopetoun; and Ouyen–Murrayville. Silver Lines to Deniliquin and Echuca and Echuca to Toolamba are already upgraded. The short Maryborough–Moolort Silver Line will also be upgraded but is currently available for freight use. Upgrades to the Silver Lines will commence in 2009. Upgrades will achieve improved speed limits and deliver a boost to the efficiency of the rail freight network.

7.3. Current Road Network Issues

7.3.1. Local Roads

Local roads provide a key role in transporting woodchips or logs from plantations to the arterial road network. A number of these roads, while appropriate for past agricultural production, are in a condition that may not be suitable for the more intensive role required of timber harvesting. Concerns relate to width of pavement, strength of pavement and the ability of structures to carry loads.

ACTION

Handling facilities outside the Port of Portland precinct may need to be upgraded to meet the multi-modal freight task for timber and other products.*

*Subject to a Commonwealth Government funding contribution.

7.3.2. Overtaking Policy

There is a long-term objective of implementing overtaking opportunities every 15km on Class A routes. This standard has been derived from a Victorian State Government report titled *Rural Arterial Road Network Strategy*. If this standard was applied to the Princes Highway between Heywood and the South Australian border, it would result in the provision of six passing lanes (three in each direction) costing approximately \$1.5 million each (\$9 million in total). Similarly, a further pair of overtaking lanes would be provided between Mount Gambier and Kingston.

7.3.3. Truck Stops

Truck stops along the Princes Highway have been identified as a key issue that needs to be addressed in the next 12-18 months. Dartmoor and Heywood are locations where stops with commercial facilities may be viable.

7.4 Adelaide – Horsham – Melbourne Corridor

The Western and Dukes Highways is the principal road linking the capital cities of Adelaide and Melbourne. It constitutes the northern border of the Green Triangle Region. The Adelaide–Melbourne interstate rail line also serves as a significant freight transport component of the corridor linking major grain, agriculture, livestock and viticulture production areas of Western Victoria and the south-east of South Australia to Melbourne, Adelaide and the associated export market. The corridor also carries substantial volumes of goods, and inputs into manufacturing, that are made in Adelaide, Melbourne and towns along the corridor.

Major export industries, including the vehicle manufacturing sector, rely on the Western and Dukes Highways for freight movements of componentry and finished products. The Highway is a principal link between export industries in South Australia and the Port of Melbourne, which currently services all shipping export trade from Adelaide.

7.4.1 Nhill Trailer Exchange Project

The township of Nhill is strategically located at the half-way point between Melbourne and Adelaide on the Western Highway. Nhill is also an important service centre in the Wimmera Mallee wheat belt in western Victoria, 376 kilometres west of Melbourne.

The Western Highway through Nhill carries about 2250 vehicles per day comprising 46.4 per cent commercial vehicles. This equates to 1044 trucks per day of which most make scheduled stops at Nhill so as to comply with national fatigue legislation requirements.

The existing trailer exchange facility at Nhill has reached its capacity to be able to effectively service the growing number of heavy vehicles accessing the facility.

As part of the Commonwealth Government's Heavy Vehicle Safety and Productivity program, Victoria has nominated as a priority project the construction of a new trailer exchange facility at Nhill.

This project will help address the requirement of the Council of Australian Governments (COAG) for a significant improvement in roadside rest areas so as to address heavy vehicle driver fatigue. It will also enhance the operation of the Western and Dukes Highways as a key freight link in Australia's national highway network.

7.4.2 National Building Projects

A number of strategic investments via the Nation Building Program (AusLink 2) and various economic stimulus announcements are being made by the Commonwealth and the Victorian and South Australian Governments along this corridor, including:

- Western Highway duplication between Ballarat and Stawell;
- Safety and capacity improvements to the Western Highway between Stawell and the South Australian border;
- Development of a new intermodal freight terminal at Dooen, near Horsham;
- Western Victoria Rail Track Upgrade by the Australian Rail Track Corporation (ARTC);
- Rail loop extensions between Adelaide and Bordertown to increase corridor capacity and efficiency by the ARTC;
- Safety improvements to the Dukes Highway and the adjacent Princes Highway and South East Freeway (all part of the Adelaide–Melbourne corridor). Works include roadside hazard protection, overtaking lanes, rest areas, pavement rehabilitation and shoulder sealing.

7.5. High Productivity Freight Vehicles (HPFVs)

7.5.1. What is a High Productivity Freight Vehicle?

High Productivity Freight Vehicle (HPFV) is the umbrella term for vehicle configurations that are permitted to operate after gaining approvals through the national Performance-Based Standards. These vehicles must comply with approved safety and infrastructure protection performance measures.

HPFVs represent the next generation in freight transport, with the ability to shift more freight more efficiently with greater environmental and safety performance.

HPFVs can range from specialist rigid trucks, through to multi-combination articulated configurations and B-Doubles. Longer B-Doubles are examples of next generation HPFVs.

7.5.2. The Use of HPFVs

Victoria

Victoria has for many years been the national leader in projects and programs that support improved heavy vehicle productivity outcomes. Victoria has implemented an ongoing bridge monitoring and strengthening program that has resulted in 99 per cent of the Victorian arterial road network now being open for use by B-Doubles and vehicles of Higher Mass Limits.

Freight Futures recognises the benefits of HPFVs, such as B-Doubles, from economic, efficiency, safety, environmental and amenity perspectives.

Under a Performance-Based Standards (PBS) regulatory framework, which is an alternative to the existing prescriptive framework, the design and operation of heavy vehicles are regulated in terms of performance (e.g. swept path, which is the area of road covered by the vehicle when turning), rather than prescriptive standards (e.g. length and internal dimensions).

This gives industry the ability to be more innovative in vehicle design, delivering greater productivity while providing road authorities and the community with assurances about vehicle performance (in terms of safety, infrastructure and environment protection outcomes). Importantly, heavy vehicles designed under PBS are matched to roads that are suitable to their level of performance. The PBS approach recognises that 'one size does not fit all' and that, while next generation HPFVs will not be suitable for many arterial roads and most smaller local roads, greater productivity may be possible from the best roads (such as freeways).

The implementation of PBS, including a trial of next generation HPFVs, will see the number of articulated truck trips decline for a given freight task. According to work done for the National Transport Commission (NTC), a reduction of 25 per cent of line-haul vehicle trips is possible.

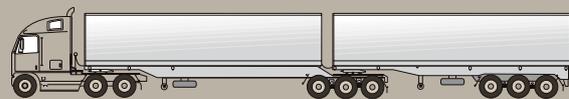
Through *Freight Futures*, the Victorian Government is formalising its commitment to the progressive implementation in Victoria of the national PBS initiative endorsed by the ATC and COAG by:

- confirming general access to the Victorian road network for PBS Level 1 vehicles, which are similar to existing general access vehicles (such as semi-trailers and rigid trucks) in terms of size and weight, but have additional productivity and safety benefits;
- confirming access to the great majority of the Victorian arterial road network for PBS Level 2a vehicles; and
- facilitating access for next generation PBS Level 2b vehicles to selected routes as a trial in the first instance, which will be especially useful for port-related container transfers and many other applications, including some regional commodities.

Figure 13
Examples of HPFVs



Standard B-Double (26 metres), already in common use



Longer (approximately 30 metres)
B-Double configuration, with two 40 foot
shipping containers

The Victorian Government recognises there are some concerns in the community about the introduction of next generation HPFVs on the network but believes that, with a trial on selected parts of the network, they could produce benefits for both industry and the community.

The Victorian Government will conduct a next generation HPFV community awareness campaign in partnership with relevant stakeholders, including the Victorian Transport Association (VTA) and the Transport Workers Union (TWU). This campaign will promote community awareness about the trial of next generation HPFVs, their potential benefits and their role in the Principal Freight Network. The Government will work closely with local government on the trial implementation, including VicRoads, seeking their views on the impact of permit applications on relevant local safety issues.

Freight Futures, launched in December 2008, says that during the trial, next generation HPFVs will be required to participate in the Intelligent Access Program (IAP), a GPS tracking system through a certified IAP service provider, which will provide the Government and community with a high degree of confidence in compliance with operating conditions, especially route compliance. They will also be required to have front, rear and side under-run protection, use road friendly suspension systems and be fitted with anti-lock braking systems (ABS). The prime mover will be required to operate to a Euro IV emissions standard.

Upgrades to selected roads and bridges will be funded on the Principal Freight Network, beginning with a priority staged trial of a next generation HPFV network in the Green Triangle Region targeting roads connecting to the Port of Portland to support movement of timber from plantations to chip mills and for export. These upgrades are expected to demonstrate the productivity benefits derived from next generation HPFV use, as well as the best practice arrangements for managing social amenity issues.

The only vehicles being extended in this trial will be longer B-Doubles; there is no plan to extend the trial to include B-Triples.

Within the Green Triangle Region, the routes on which these next generation HPFVs would be permitted to operate include:

- Riddoch Highway – Penola to Mount Gambier;
- Princes Highway – Heywood to Mount Gambier; and
- Henty Highway – Hamilton to Port of Portland.

South Australia

South Australia has long recognised the benefits of HPFVs in improving freight efficiency and productivity.

Twenty six metre B-Doubles have also been an integral part of transport operations in the south-east of South Australia consistent with national prescriptive regulations.

The PBS regulatory framework provides an opportunity to introduce the next generation of HPFVs that carry more freight and at the same time meet stringent safety and environmental requirements.

To meet the challenge of the ever increasing freight task, the need to develop a more responsive road freight network and the introduction of these more efficient and innovative HPFVs, the South Australian Department for Transport, Energy and Infrastructure (DTEI) developed the Heavy Vehicle Access Framework (HVAF) which embodies the following principles:

- a strategic approach to route network development;
- route network assessment standards;
- network policies and operating conditions;
- administrative framework; and
- route network funding responsibilities.

The HVAF is being used in South Australia as a basis for applying a strategic approach to route network development in the Green Triangle Region for PBS compliant HPFVs such as 30m long B-Doubles fitted with quad-axle groups on the trailers.

The HVAF also provides the guidelines for consultation with councils, the transport industry and freight companies to ensure that route networks are developed to meet the required freight task with the appropriate applied conditions relative to safety and infrastructure management outcomes.

7.6. High Productivity Freight Routes

The following two maps (Figures 14 and 15) show the approved B-Double routes in Victoria and South Australia.

Refer to Section 7.1.1 for further detail on the existing transport network.

7.6.1. Victoria

(See Figure 14 Victorian B-Double Approved Routes)

7.6.2. South Australia

(See Figure 15 South Australian B-Double Approved Routes)

7.7. Heavy Vehicle Movements into Portland

There will be an estimated additional 138,000 semi-trailers or the equivalent of 93,000 B-Doubles per annum on top of the current estimated 90,000 trucking movements into the Port of Portland from the timber industry (converging on the Portland Ring Road from all timber sources within the Green Triangle Region).

This is shown in Table 1. These figures are based on an assumption that the Penola Mill does not proceed. Truck volumes will decrease by approximately 20 per cent if the mill proceeds.

Table 1
Truck Movements to Portland
Per Annum Without Rail

Current truck movements to Portland	Additional woodchip movements (if by semi-trailer)	Additional woodchip movements (if by B-Double)	Total
90,000	138,000	–	228,000
90,000	–	93,000	183,000

Figure 14
Victorian B-Double Approved Routes



Figure 15
South Australian B-Double Approved Routes





8. Road Network Enhancements



8.1. Arterial Roads

In preparing this Action Plan, a detailed wood flow mapping exercise was undertaken by the South East Resource Information Centre (SERIC). The majority of forecast timber flows are woodchips moving from blue gum plantations and chipping mills to the Port of Portland. Adequate access to and around the Port via the Portland Ring Road is therefore critical. Significant woodchip flows have been identified along sections of the existing highway network within the Green Triangle Region, particularly the Princes Highway from Heywood and Mount Gambier through to Kingston and the Riddoch Highway. Upgrading of these roads to enhance efficiency and reduce social, environmental and safety impacts on local communities will also be high priorities.

Recent completed improvements or which are underway in the region include the Princes Highway between Portland and Heywood, bypasses of Mount Gambier and Millicent, widening of the Penola to Clay Wells Road, and additional overtaking lanes on the Riddoch and Princes Highways. As well, the \$15 million Cliff Street Overpass in Portland was completed in 2006. The overpass has greatly improved access to the Port from the Henty Highway, separating local and Port traffic, enhancing road safety and improving rail freight access.

Roads requiring upgrading for woodchip flows and general freight growth include the Riddoch Highway between Mount Gambier and Penola (including a bypass of Penola), Portland-Casterton Road, Henty Highway in Portland and between Heywood and Hamilton and the Princes Highway between Heywood and Mount Gambier through to Kingston. Upgrades to the Princes Highway will be important to limit growth of heavy timber traffic on the Portland-Nelson Road, which will otherwise have adverse impacts on tourism-related traffic.

Arterial road upgrades may also be necessary to cater for some movement of mineral sands on key arterial routes.

8.2. Recommended Road Projects

To provide ongoing recognition of the Region's key transport links to the national economy, the following links need to be added to the national network:

- Henty Highway – Port of Portland to Horsham;
- Princes Highway – Heywood to Mount Gambier; and
- Riddoch Highway – Mount Gambier to Keith.

This will provide a national link from the Port of Portland to the Dukes Highway at Keith.

The following road projects will provide community benefits and in particular support the anticipated woodchip flows more efficiently from 2009 onwards by enabling HPFV access and the seamless movement of timber commodities to the Port of Portland and pulp/ chip mills. These projects will also generate community benefits by improving road safety and social amenity. They will also support the efficient movement of other commodities in the Green Triangle Region.

The highest priority road upgrade projects identified for funding are shown in Table 2. Note: projects are not listed in priority order.

Table 2

Green Triangle Region Priority Road Projects – 2009 to 2014

Project
Port of Portland Ring Road
Princes Hwy West Upgrade (Heywood-Kingston) and Henty Hwy Improvements, including: Heywood Intersection Upgrades
Penola Bypass (Stage 2)
Riddoch Hwy Upgrades
Local Road Upgrades
Arterial Roads, including: Portland – Casterton Upgrade (dependent on timber flows)

Note: Mount Gambier and Millicent Bypasses have been funded.

Improvement works on the Princes Highway from Portland to Heywood are nearing completion with intersection works at Heathmere Road and the rail crossing scheduled for completion in late 2009.

The Mount Gambier and Millicent Bypasses and Stage 1 of the Penola Bypass are funded. Other bypasses may be required in strategic locations and will be planned by VicRoads and the South Australian Department for Transport, Energy and Infrastructure (DTEI), as required.



8.3. Princes/Henty Highway Heywood to Kingston

According to SERIC’s woodchip flow forecasts, the 70km section of the Princes Highway between Heywood and Mount Gambier will handle approximately 1.7 million tonnes of woodchip flows during the peak year (anticipated to be 2012), with lesser flows in the long term. Major works will still be required along the Princes Highway in order to cope with woodchip flows and other freight flows in the region. This is further highlighted by the need to divert freight traffic from the Portland-Nelson Road onto the Princes Highway as a safety priority to prevent tourist/truck conflicts.

The Portland-Nelson Road route between Portland and Mount Gambier is 8km shorter than the Princes Highway route that runs via Heywood. As a result, approximately 30% of freight travelling between Portland and Mount Gambier traverses the Portland-Nelson Road. The conflict between woodchip trucks, school buses and tourist vehicles is an issue. A review of the speed limit and signage along this route will be undertaken to maximise safety.

However, provisions for some truck movements should be catered for as woodchip production does occur along the Portland-Nelson Road and it is not viable to reroute these movements back to the Princes Highway.

Table 3

Princes Highway Heywood – Kingston

Project
Additional overtaking opportunities (Linking Victoria standard)
Truck stops
Service facility
Shoulder sealing
Bridge strengthening
Dartmoor-Hamilton Rd Intersection improvements
Henty Highway Intersection improvements

8.4. Henty Highway (north of Heywood)

This road is currently heavily used by timber (including softwood from sawmills in Heywood and Portland) and mineral sands vehicles. The completion of the Myamyn mill in July 2009 will add significantly to current volumes, as will general timber freight and potentially pellets from the proposed Plantation Energy development in the region. In total this could result in freight flows in excess of 3 million tonnes per annum.

8.5. Portland Ring Road (Henty Highway)

The Portland Ring Road (Henty Highway) provides the key access into the Port of Portland. With the increased introduction of next generation High Productivity Freight Vehicles (HPFVs), improvements to the operation of a number of intersections and other safety measures are proposed. These projects are listed in Table 4.

8.6. Portland–Casterton Road (approximately 50km)

The Portland–Casterton Road (approx 50km) is a key freight route in the Green Triangle Region. Between 800,000 and 1 million tonnes of wood per annum are expected to flow through Casterton during peak years. Investment will be required to improve the condition of this road to assist in the movement of wood products.

8.7. Riddoch Highway (Penola to Mount Gambier)

Additional priority overtaking lanes have been identified for the Riddoch Highway for intervention beyond five years.

Widening on the Riddoch Highway between the Dukes Highway and the Coonawarra has also been identified as an intervention required beyond five years. This proposal involves widening 82km of this section in 2010-11 and 2011-12.

8.8. Penola Bypass

Stage 1 of the Penola Bypass project will commence in 2009 with the construction of the southern half. The proposed 4.7km route bypasses Penola to the west, providing an alternative route for heavier vehicles to avoid the town centre.

Importantly, the bypass will carry the additional estimated 220 commercial vehicles per day that will be generated by the imminent blue gum harvest (commencing in the latter half of 2009). These vehicles would otherwise travel through the township. In overall terms, the completed full bypass has the potential to remove approximately 2500 vehicles per day (of which 570 are estimated to be commercial vehicles) from the centre of the township by 2010, thereby improving freight efficiency.

ACTIONS

The capacity of major arterial roads, including the Princes Highway West (Heywood-Kingston), Riddoch Highway, Henty Highway and the Port of Portland Ring Road, will be enhanced to deliver productivity improvements and other benefits.*

Selected Victorian arterial roads and bridges connecting to the Port of Portland that support movement of timber from plantations and other commodities will be upgraded for a staged trial of next generation HPFVs.*

Further, arterial roads, including the Portland–Casterton Road, will also be upgraded as required to deliver productivity improvements and other benefits.*

Consistent with existing policies of the two Governments, Victoria and South Australia will continue to recommend the inclusion of Princes Highway West (Colac to Mount Gambier via Portland) onto the national network by the Commonwealth Government.

Further, given the importance to the national economy, the Victorian and South Australian Governments recommend the Riddoch Highway (Keith to Mount Gambier) and the Henty Highway from Portland (Portland Ring Road) to Horsham be added to the national network by the Commonwealth Government.

*Subject to a Commonwealth Government funding contribution.

Table 4
Henty Highway Project List

Project	Location
Three lane treatment into Port	R B Anderson Rd
Ease camber of curve and improve intersection and bridge	Madeira Packet Rd
Rearrange Bridgewater Rd overpass to allow for 4.6m clearances under all over passes along Henty Hwy	Bridgewater Rd
Intersection improvements	Portland-Nelson Rd
Intersection improvements	New St
Intersection improvements	Cashmore Rd
Intersection improvements	Princes Highway



8.9. Local Roads

Local roads are a critical part of the timber supply chain and will be reviewed on an ongoing basis. The Victorian Government has worked with Timber Towns Victoria, the timber industry and councils to contribute funding to upgrade local roads to accommodate current and future wood flows. Within the Green Triangle Region of Victoria, \$3.8 million has been invested in the following projects since 2005/06, as shown in Table 5.

Table 5

Victorian Local Road Projects – Funded

Year	Road
2008/09	Dartmoor Casterton Road (8.3km to 10.57km) – road widening
	Chrome Road (1.46km to 3km) – pavement rehabilitation 1.46 – 3.0km north of the Henty Hwy at Branxholme
2007/08	Chrome Road (0.3km) – bridge replacement – 0.3km north of the Henty Highway at Branxholme
	School Road (1.49km) – bridge replacement – Bessiebelle
2006/07	Casterton Dartmoor Road (6.9km to 7.83km) – road widening – Killara
	Casterton Dartmoor Road (12.5km to 16.39km) – road widening – Killara
	Casterton Dartmoor Road (0.82km to 6.6km) – road widening – Glenelg
	Grubbed Road (4.65km to 7.62km) – road widening – Wilkin
2005/06	Mill Road (8.1km to 12.15km) – pavement rehabilitation – Strathkellar
	Casterton Dartmoor Road (26.4km to 29.6km) – road widening
	Grubbed Road (7.5km to 12.6km) – road widening – Glenelg Shire

South Australia's South East Local Government Association (SELGA) has developed a regional transport plan focussing on local roads. This plan is used by SELGA to identify and prioritise local roads requiring improvements to accommodate freight growth, including the timber industry.

The Victorian and South Australia Governments will continue to work cooperatively with timber companies and councils on local roads funding.

While the use of next generation HPFVs (e.g. quad axle B-Doubles) will be limited to key sections of the arterial road network, key parts of the local road network that perform a critical 'last kilometre' function in connectivity between processing plants and the arterial road network will also play a crucial role. The upgrading of these local roads will therefore be necessary to perform the timber freight task.

8.10. Timber Coupe Harvest Plans

Coupe Harvest Plans are being developed by timber companies in consultation with councils. These Coupe Harvest Plans will detail the precise transport routes that will be used by timber companies to haul timber from each coupe to chip mills and the Port of Portland.

Coupe Harvest Plans are to be provided to councils 12 months in advance of harvesting operations.

These plans will ensure adequate communication is provided to communities on wood flows and will enable councils, VicRoads and the South Australian Department for Transport, Energy and Infrastructure (DTEI) to plan the asset protection of roads, and ensure safety issues are addressed.

ACTIONS

A Green Triangle Region local roads program will be established to assist Councils to upgrade local roads as needed between 2009 to 2014 to ensure the woodchip freight task is performed as efficiently as possible. The quantum of the program will depend on the level of Commonwealth funding for the Green Triangle package, and the timing of individual projects will depend on private sector contributions.*

Timber Coupe Harvest Plans will be completed by timber companies in consultation with councils, VicRoads and the South Australian Department for Transport, Energy and Infrastructure (DTEI), and will be provided to councils at least 12 months ahead of harvesting.

*Subject to a Commonwealth Government funding contribution.



9. Rail Network Enhancements

A private consortium has proposed a pulp mill near Penola, with an estimated output of 750,000 tonnes of pulp per annum. This product could potentially be transported by rail to Adelaide via the currently disused broad gauge rail line to Wolseley, to join the standard gauge Melbourne-Adelaide main line. The rail line would be gauge standardised and reopened in this event, most probably from Kalangadoo (south of Penola) to enable shunting operations to occur. A private sector contribution towards these costs is proposed, and a funding allocation has also been committed by the South Australian Government.

Between 2012 and 2015, new export woodchip volumes to the Port of Portland are likely to reach 4.5 million tonnes per annum. At these volumes, rail freighting of woodchips would potentially be commercially viable, particularly on the Mount Gambier–Heywood rail line.

The Australian Rail Track Corporation (ARTC) has recently become a key institutional player in rail freight operations in the Green Triangle Region through its 45-year lease of the Portland–Maroona line. The ARTC has significant capacity to capture and grow new business opportunities by leasing and managing the Mount Gambier–Heywood line.

The Victorian and South Australian Governments are seeking to progress cooperatively with the ARTC, Commonwealth and private sector this significant opportunity to increase rail's share of the national freight task.

The rail infrastructure from Heywood to Mount Gambier and beyond to Millicent and Wolseley via Penola has not been used since April 1995 when the Melbourne–Adelaide and Maroona–Portland lines were gauge standardised. The line from Heywood to Mount Gambier and beyond is still broad gauge and would require standardisation and considerable sleeper replacement, ballast and other works in order to be reopened.

The routes of these lines are shown in Figure 16.

9.1. Enhancement of Rail Infrastructure

There are a number of issues to be addressed as part of possible enhancement of rail services to handle transport tasks in the Green Triangle Region. These include:

- Additional rail access to the Port of Portland is required due to topography, existing developments and amenity of residential neighbours. It is unlikely that rail access to near the quay can be achieved, with a rail terminal near the existing siding at Canal Court and a conveyor belt system from the rail head to the quay side estimated to cost \$20 million.
- Rail is best suited to large volumes and common practices. It would be desirable if timber companies would agree to share common user facilities.
- Government pays a portion of capital costs associated with rail.

9.2. Rail Routes

9.2.1. Hamilton–Portland

This standard gauge operational rail line has recently been transferred to the ARTC. It is in generally good condition, with the only real issues being Port of Portland rail terminal arrangements and lack of terminal facilities for loading and unloading woodchip and mineral sands. It connects to the Melbourne–Adelaide line at Maroona near Ararat. Hamilton–Portland by rail is approximately 82km and has an anticipated woodchip flow from the Hamilton area of around 250,000 tonnes per annum from around 2011, based on SERIC's analysis of wood flows, as shown in Figure 4.

The Ports of Geelong and Portland are already linked by standard gauge rail line. This provides the capacity for timber processing companies along this line to move freight to either port. The performance of this line would be enhanced by the construction of rail sidings at strategic locations. A further option is to use the Heywood–Mount Gambier rail line, if re-opened, to move product by rail from the Penola region.

9.2.2. Heywood–Penola and Millicent Rail Line (via Mount Gambier)

The *Victorian Rail Freight Network Review 2008* recommended the Heywood–Penola rail line be reopened and standardised, to link with the Heywood to Portland line, part of the ARTC standard gauge network. According to the Cooperative Research Centre for Forestry (December 2006), road transport within the Green Triangle Region at the time was handling approximately 4 million tonnes of forest products per annum, suggesting these quantities may be sufficient to support the standardisation and reopening of the line. The various rail sections are considered separately below.

Heywood–Mount Gambier

This broad gauge line closed in April 1995 when the Melbourne–Adelaide and Maroona–Portland lines were standardised. This line is approximately 89km long and requires gauge standardisation and significant ballast and vegetation removal works for reopening. The anticipated annual woodchip flows along this route are 1.7 million tonnes (potentially more if Portland–Nelson Road flows are diverted to rail or the Princes Highway, but could be reduced if the Penola pulp mill proceeds).

Mount Gambier–Penola

This 50km broad gauge line closed in April 1995, but was used by the Limestone Coast Railway for tourist operations from 1998–2006. The volunteer organisation ran tourist trains from Mount Gambier to Penola and Tantanoola. These sections supported passenger train operations at up to 60km/h.

Penola to Portland by rail is approximately 163km and annual woodchip flows between Penola and Mount Gambier are approximately 1.2 million tonnes.

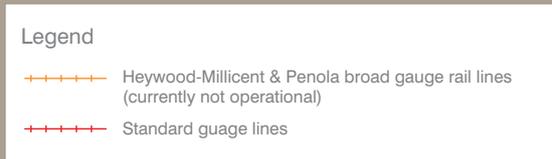
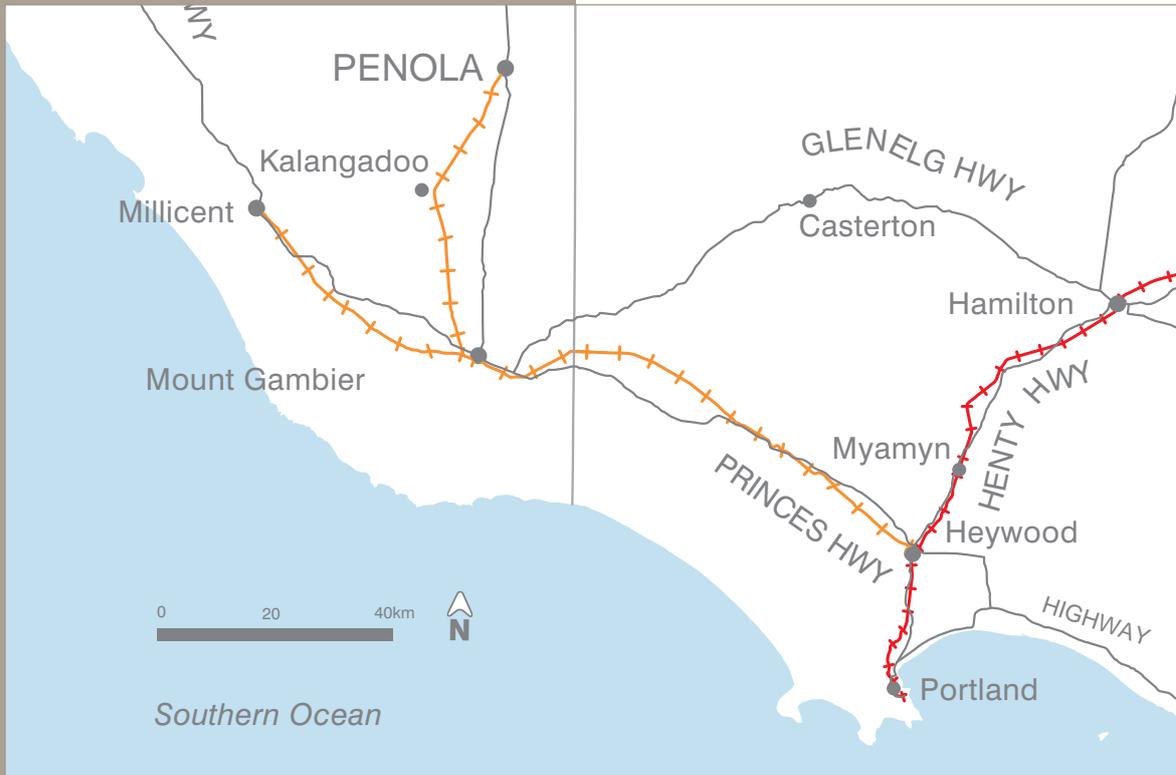
Mount Gambier–Millicent (Tantanoola)

This broad gauge line is approximately 44km long and closed in April 1995, but was used for tourist operations by the Limestone Coast Railway from 1998–2006. Tantanoola–Portland by rail is approximately 157km and the annual woodchip flows between Tantanoola and Mount Gambier are expected to be around 250–300,000 tonnes.

Figure 16

The Heywood-Millicent and Penola Rail Scenarios
(via Mount Gambier)

Reference: http://www.street-directory.com.au/sd_new/mapsearch.cgi



9.3. Assessment of Rail Potential

Most rail options are heavily impacted by required capital cost for gauge standardisation, rail line rehabilitation and rebuilding. To investigate this, an analysis was undertaken with freight controllers paying only direct operating costs (above rail and typical access charges) but without a requirement to pay interest on network capital investment.

The clear implication from this is that the use of rail is likely to require Government investment in required rail infrastructure.

There are also issues arising from timber companies' varying preferences for whether chipping should be undertaken in forest areas (requiring transport of chip from forest to port) or at central chip mills (requiring transport of logs).

9.4. Recommended Rail Projects

The highest priority rail projects identified for funding are shown in Table 6.

Note: projects are not listed in priority order.

9.5. Recent Developments

Recent developments mean rail will play a large role in the freight task in the Green Triangle Region. These developments include:

- the proposed construction of the Penola Pulp Mill and the linking investment by the SA Government of \$10m to re-open and standardise the Mount Gambier–Wolseley rail line between Kalangadoo and Wolseley;
- the transfer of the Maroona–Portland line to the ARTC’s 45-year lease on the Victorian network, and a \$15m upgrade of this line by the ARTC; and
- Iluka mineral sands – Iluka is in discussion with the Victorian Government about using rail services to freight mineral sands to its separation plant at Hamilton and then to export markets.

9.6. Woodchips

Between 2012 and 2015, export woodchip volumes to the Port of Portland are likely to reach 4.5 million tonnes per annum.

At these volumes, rail freighting of woodchips would potentially be commercially viable, particularly on the Mount Gambier–Heywood rail line.

However, pre-conditions for viable rail freight services would include:

- enhanced receipt and transfer capacity at the entrance to the Port of Portland;
- consolidation and aggregation of chipping loads by timber companies at key collection/transfer nodes across the Green Triangle Region; and
- alignment of this project with the commercial and investment priorities of the ARTC – noting that:
 - the ARTC recently became a key institutional player in rail services in the Green Triangle Region through its 45-year lease of the Portland–Maroona line;
 - the significant capacity of the ARTC to capture and grow new business opportunities generally in the rail freight sector; and
 - the fact that peak woodchip volumes will be reached around 2012, but the freight task can be adequately carried by the existing road network prior to this, providing priority upgrades occur.

Timber companies have indicated that, while significant data on woodchip flows were available for this report, more comprehensive and precise data will be available throughout 2009. This will enable the Victorian and South Australian Governments and the ARTC to better understand the viability and potential timing of rail freight operations for woodchips.

ACTIONS

The Victorian and South Australian Governments will continue to progress cooperatively with the ARTC, Commonwealth and the private sector opportunities to increase rail’s share of the national freight task through re-opening and standardising key lines in south-eastern Australia.*

The Victorian Government recommends that the ARTC-leased Maroona to Portland rail line be added to the national network.

The Victorian and South Australian Governments recommend, should a decision be made to reopen the Mount Gambier–Heywood rail line and to also lease it to the ARTC (including the rail line north of Mount Gambier if this becomes viable), that it be added to the national network.

*Subject to a Commonwealth Government funding contribution.



Table 6
Green Triangle Region Priority Rail Projects – 2009 to 2014

Projects
Heywood–Kalangadoo (just north of Mount Gambier) Rail Line Kalangadoo–Wolseley Rail Line (SA) (See Note)
Bronze Lines (Bronze intrastate lines for mineral sands)
Warrnambool Rail Upgrade (for dairy/meat export to Port of Melbourne)

Note: The South Australian Government has committed \$10 million towards the Kalangadoo–Wolseley rail line. A detailed estimate for the Kalangadoo–Wolseley rail line is being prepared and is commercial-in-confidence.



10. Green Triangle Region Regulatory Environment



10.1. Regulatory Alignment Between SA & VIC

Aligning interstate regulations in the freight and logistics sector can increase industry productivity and competitiveness, and reduce the regulatory burden on industry, especially in cross-border regions such as the Green Triangle Region. Recognising this, Victoria and South Australia have made significant progress in recent years in achieving greater cross-border regulatory alignment, including implementing uniform regulations covering the escort of over-dimensional loads across borders.

However, this Action Plan has identified further opportunities for regulatory alignment between Victoria and South Australia, including:

- publication of common Timber Transport Load Management Guidelines for the Green Triangle Region;
- harmonising cross-border regulations for truck/trailer combinations;
- developing a Performance-Based Standard application flowchart and collaborative assessment process;
- release of a Freight Industry Code of Conduct; and
- developing an Access Management Framework for Timber Coupes.

The proposed upgrade of the Princes Highway between Heywood and Mount Gambier and the Henty Highway in Portland would enable these routes to be used by next generation HPFVs. These vehicles would be limited to nominated arterial roads and critical connections between the highways, timber plantations, processing plants and the Port of Portland.

10.1.1. Timber Transport Load Management Guidelines

The development of common Timber Transport Load Management Guidelines is a joint initiative of VicRoads and the Department for Transport, Energy and Infrastructure (DTEI), South Australia. It will provide guidance to industry on the issues associated with load security for woodchips, logs and sawdust.

10.1.2. Cross Border Harmonisation of Truck/Trailer Regulations

VicRoads and South Australia's DTEI have jointly prepared a report outlining the key differences between the States for truck and dog trailer combinations. The report includes a series of recommendations of proposed immediate adjustments and longer term positions to be agreed across border. Some aspects are likely to result in a Green Triangle Region pilot involving amended regulations to apply on selected routes in the region under a permit arrangement to harmonise current differences.

10.1.3. PBS Application Flowchart and Collaborative Assessment Process

VicRoads and South Australia's DTEI have prepared a collaborative assessment process for PBS applications. The collaborative assessment process will ensure that access considerations in each State are considered upfront in the permit process and will greatly assist the seamless movement of freight across the Green Triangle Region.

10.1.4. Freight Industry Code of Conduct

A Freight Industry Code of Conduct will be developed on the basis of existing codes in Victoria to recognise the high levels of interaction between freight, tourism and residential traffic in the Green Triangle Region. The Code will be adopted by transport operators in the Green Triangle Region to present a common sense of community engagement.

10.1.5. Access Management Framework for Timber Coupes

The Access Management Framework for Timber Coupes will be based on the Farm Gate Access Guidelines that provide coupe managers with information about standards required for driveway access abutting the road system to take account of sight distance, road type, native vegetation and duration of harvest. The Framework will also provide reference to harvesting plans used in Victoria and traffic management needs on local and arterial roads based on road standard, sight distance, road geometry, etc. It will also make use of the Stock on Roads model for short-term haulage operations.



10.1.6. Alignment of Vehicle Types/ Specifications

An analysis has been conducted on regulatory differences that exist between Victoria and South Australia for truck and trailer combinations – a vehicle type anticipated to be important in the cartage of timber products in the Green Triangle Region, and the area in which differences currently exist.

This analysis has identified some areas where harmonising of regulations cross-border would offer benefits to industry arising from seamless transition between States when operating fleets of truck and trailer combinations. In summary, the key areas that have been identified and where work is underway include:

- minimum axle spacings for 3 and 4 axle trucks towing 3 axle trailers;
- a 50 tonne gross mass limit for 3 axle and 4 axle trucks operating with 4 axle trailers; and
- gross trailer mass allowances.

Also, to assist industry when processing PBS applications, an up-front assessment of access will be undertaken by jurisdictions in a collaborative sense to identify potential issues early in the process. With the time and cost involved in working through the PBS process, it is important that jurisdictions are aware of the access needs sought by applicants and can undertake these assessments in a collaborative sense rather than on a State by State basis. A flowchart has been developed with appropriate hold points to facilitate this process in each of the relevant authorities.

10.1.7. Over Dimensional Escorts

In Victoria, over dimensional escorts are conducted by VicRoads Transport Safety Services Officers. In South Australia, this service is provided by the South Australian Police Force, whose existing powers across borders are recognised. For escorted loads travelling from Victoria to South Australia, there was a potential risk to road safety due to the difficulty of transferring escort responsibilities at the border in a timely manner, leading to inefficient operations between the States.

Through a collaborative approach, Victoria and South Australia have identified workable arrangements that will enable a more seamless process for cross-border movements between the two States. VicRoads has sought the agreement of the South Australian Department for Transport, Energy and Infrastructure (DTEI) to enable over dimensional loads to be moved cross-border by Victorian officers to an applicable, safe changeover location such as the nearest town to the border.

To enable cross-border powers to be recognised, DTEI has authorised individual VicRoads Transport Safety Services Officers in the Western and South Western Regions of Victoria to allow the same powers for direction of traffic. The Victorian officers have been authorised under Sections 35 and 36 of the *South Australian Road Safety Act 1961*.

10.2. Implementation of Regulatory Efficiencies

Victoria's Department of Transport, VicRoads and South Australia's DTEI will continue to work closely to ensure the timely implementation of the identified regulatory efficiency initiatives to ensure the seamless movement of freight across the Green Triangle Region.

ACTION

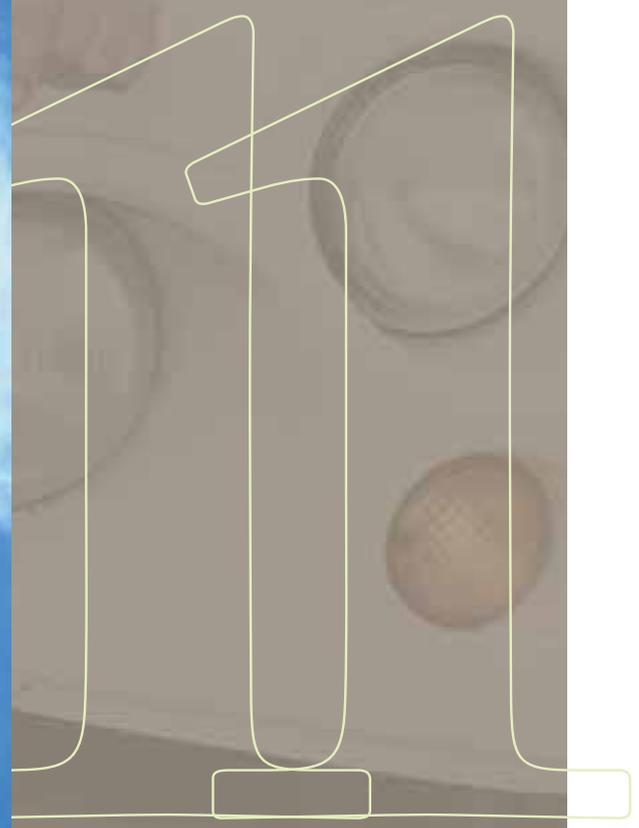
The Victorian and South Australian Governments will implement the following measures for cross-border regulatory alignment in the Green Triangle Region:

- publication of common Timber Transport Load Management Guidelines;
- harmonisation of cross-border regulations for truck/trailer combinations;
- development of a Performance-Based Standard application flowchart and collaborative assessment process;
- release of a Freight Industry Code of Conduct; and
- development of an Access Management Framework for Timber Coupes.



11. Job Opportunities, Skills and Training

In total, \$8.7 billion worth of new investments will occur in the Green Triangle Region over the next three to five years. These investments will generate up to 5,400 construction jobs, up to 1000 direct jobs in the blue gum timber industry alone and up to 1000 jobs in industries associated with the timber industry.



The Victorian Department of Transport is developing a *Workforce Strategy for Freight Drivers* in recognition of current and likely future skill shortages among freight drivers. The strategy is designed to support the freight and logistics industry in its workforce planning endeavours. It identifies components of workforce planning that the industry is struggling to address. It considers how the freight and logistics industry can better plan for its workforce needs and recommends areas where Government can improve its regulation of the industry and provide support through facilitation and coordination. This strategy will be finalised and released in 2009.

This work is also feeding into a national working group which has been established under the Australian Transport Council (ATC) to address workforce planning and skills in the transport and logistics industries more broadly.

11.1. Issues

Timber industry training, particularly in the harvesting sector, tends to be a mixture of formal training, on-the-job training and on-the-job learning. Future workforce planning within the Green Triangle Region will also need to take account of an ageing workforce, particularly in the haulage sector.

Annual turnover in full-time employment across the forest industry is quite significant at around 16%, with up to 25% turnover occurring in the sawmilling and processing sector.

11.2. Labour Shortages and Requirements

Surveys undertaken in the Green Triangle Region in 2006 and 2007 by the Forest Industry Training Network (FITNET) in conjunction with South Australian Regions at Works, TAFE SA, Limestone Coast Regional Development Board, Auspine and the Green Triangle Regional Plantation Committee Inc, have identified a potential requirement for an additional 1000 employees in the forest industry as a result of the commencement of the blue gum harvesting operations. It is also estimated there will be a further 1000 indirect jobs generated through industries associated with the timber industry.

It is envisaged that there will be a labour shortfall, particularly in the harvesting and haulage sectors.

11.3. Training Facilities and Requirements

There are a number of Registered Training Organisations (RTOs) undertaking forest industry training in the Green Triangle Region through a number of courses, including:

- Degree in Applied Science (Forestry) at Southern Cross University;
- Certificate II & III in Forestry;
- Certificate II in Heavy Vehicle;
- Certificate II & III in Harvesting and Haulage; and
- Certificate II in Road Construction.

Training organisations in the Green Triangle Region have identified the timber industry as a high priority for training requirements. Some training organisations are already seeking to form partnerships with Registered Training Organisations (RTOs) in the region.

FITNET is seeking to raise awareness of employment and career opportunities within the forest industry and is continuing to seek support from interested parties to:

- expand training and educational facilities in the region;
- expand the forest industry training capacity in the region;
- encourage the participation of the industry in school industry awareness programs through work experience, traineeships and school careers counselling;
- support the Vocational Education and Training (VET) program in schools; and
- develop a collaborative regional strategy and action plan to address workforce training, recruitment and retention.

11.4. Skills Shortages and Requirements

Current data relating to the timber industry suggests there will be a skill shortage from Certificate II, III and IV levels up to Diploma level in administration and supervisory/management positions.

Some of the identified skill requirements include:

- truck drivers;
- apprentices in the mechanical, electrical, hydraulic and fitting and turning industries; and
- additional operators in a range of industries, including tree farm supervisors, GIS officers, harvest planners, chief mechanics, store persons, administration officers and supervisors, logistics personnel, fencing contractors, contract sprayers and earth movers.

11.5. Indigenous Employment Opportunities

The investment in the Green Triangle Region will create new employment opportunities in a range of sectors. These opportunities will be particularly significant for the region's indigenous communities. Together with industry, the Government will support the creation of job opportunities and training for indigenous people in industries associated with blue gum harvesting, infrastructure and transport.

Recognising this, councils and relevant agencies will continue to consult with the region's indigenous communities to ensure new employment and training opportunities are taken up.

11.6. Skills Policy Context

11.6.1. Securing Jobs for your Future – Skills for Victoria

On 26 August, 2008, the Victorian Government released *Securing Jobs for your Future – Skills for Victoria*, a \$316 million package of reforms to the Victorian training system. This will include the creation of 172,000 new Government subsidised training places across the State, the hiring of 900 additional teachers and 500 non-teaching staff, and a massive boost to Victorian TAFE infrastructure.

The new skills system has four clear goals:

- increasing the number of people undertaking training in the areas and at the levels where skills are needed for Victoria's economic and social development;
- developing a training system that engages more effectively with individuals and businesses and is easier to navigate;
- ensuring the skills system is responsive to the changing needs of Victoria's industry and workforce; and
- creating a culture of lifelong skills development.

In the new skills system, training provision will be driven by demand from individuals and businesses. From 1 July 2009, *Skills for Life – the Victorian Training Guarantee*, will make training places available to Victorians at all levels of skill development, subject to eligibility requirements that encourage enrolments at higher skill levels. The Victorian Government guarantees that, wherever there is demand from eligible Victorians for accredited training, the Government will subsidise that training.

Private and public providers will be able to offer Government-subsidised training so people will have more choice and employers and industry groups that can stimulate more demand will see that demand met by the system.

A further \$10 million will ensure that, in areas of critical skill shortage and for those facing significant labour market disadvantage, there will be access to additional places where the normal eligibility requirements cannot be met.

The Victorian Government is providing \$52 million for *Skills for Growth – the Workforce Development Program*, to assist small and medium-sized businesses access training for their employees.

Workforce planning and training specialists will work directly with small and medium-sized enterprises to help them identify the skills development needed to plan for meeting those needs and to get access to training solutions tailored for their business.

As well, \$33 million will be invested in improving TAFE facilities and information technology infrastructure. It will also be used for strengthening teaching and management capability in public and community providers.

11.6.2. New Ways, New Engagement: A Skills Strategy for South Australia's Future

On 19 March 2008, the South Australian Government released *New Ways, New Engagement: A Skills Strategy for South Australia's Future*. The Strategy proposes a skills system that is driven by the needs of the State in terms of economic development and social inclusion.

The Skills Strategy initiatives are designed to boost:

- the numbers of South Australians taking part in training;
- workforce participation;
- the proportion of the workforce that is skilled;
- labour productivity; and
- cost efficiency.

The level of contestable State Government funding will be increased. This is designed to encourage the continual improvement in the efficiency and effectiveness of delivery by training providers.

Within TAFE SA, a customer-driven Service Delivery Strategy will be developed and revised structures and approaches will be implemented. These include:

- a lead institute model to provide a single entry-point for industry;
- the establishment of a 'Business TAFE' strategy;
- increased work-based training delivery (with a 25% target by 2012);
- enterprise advisory groups to provide direct feedback from employers about graduate skill levels, skills demand and training methodologies; and
- continued integration of contemporary teaching and learning practices, especially the increased use of e-learning, recognition of prior learning and case management to support learners.

A three-year staged implementation plan has been developed for the Skills Strategy with implementation of key components commencing from April 2008, with all elements of the Strategy implemented over a three-year timeframe.

A new Training and Skills Development Bill 2008 was also introduced to the South Australian Parliament on 6 March 2008 following a review of the State's training legislation. The legislation provides the framework for the State's training system, higher education and community learning.

11.6.3. Review of Skills and Workforce Development in South Australia: The Challenge for the Next Decade

In July 2008, the South Australian Government also announced the completion of the *Review of Skills and Workforce Development in South Australia: The Challenge for the Next Decade*. The Review considered the capacity and capability of South Australia's workforce to respond to anticipated economic opportunities and focussed on identifying issues that the new Training and Skills Commission (TaSC) will need to pursue and the implementation of new reforms.

The South Australian TaSC is developing a five-year South Australian Skills and Workforce Development Plan in consultation with Industry Skills Boards, regional, community and industry groups. The Plan will outline areas in which the State could invest to maximise the benefits from training and lead to sustainable employment opportunities, especially in areas of high skill demand. It will be updated annually so it can continue to respond to the changing demands and priorities of industry.

ACTIONS

The Victorian and South Australian Governments and councils will continue to consult with the relevant agencies to ensure that job opportunities within the Green Triangle Region are maximised, and skills, upskilling and training issues, particularly in the timber industry, are adequately addressed to meet workforce requirements both in the immediate and long term.

The Victorian Government will finalise its Workforce Strategy for Freight Drivers in 2009 to support the freight and logistics industry in its workforce planning and continue to participate in the national working group on Workforce Planning and Skills established under the Australian Transport Council.

The South Australian Government's Training and Skills Commission (TaSC) will continue work on the development of its five-year Skills and Workforce Development Plan, in consultation with Industry Skills Boards and regional, community and industry groups.



12. Socio-Economic and Community Development Opportunities



12.1. Socio Economic Opportunities

A number of councils within the Green Triangle Region are preparing various strategic planning documents that will identify the tasks and implementation requirements to meet the physical, social and economic needs for the blue gum harvest in the region. These documents include Glenelg Shire's Timber Harvest Coordination paper and Southern Grampian Shire's Structure Plan for 2030.

These plans will drive the needs of the current and future populations in respect of employment, housing, roads, education and health, sport and recreation, entertainment and retail. The plans will include recommendations on matters such as the needs of a changing population, planning zone changes, service infrastructure and other related issues.

12.1.1. Population Change

Councils within the Green Triangle Region are expected to experience significant population growth associated with the increased employment opportunities generated by the blue gum timber industry and associated industries.

As an example, councils within the Great Southern Region of Western Australia have experienced a 2.0–2.5% increase in population growth due to the establishment of the blue gum timber industry. The Great Southern Region of Western Australia is directly comparable to the Green Triangle Region, with both regions sharing temperate climates, agriculture and timber as significant industries, and port facilities. However, the total plantation area (hardwood and softwood) in the Green Triangle Region is approximately 188,500 hectares larger than the plantation area in the Great Southern Region of Western Australia.

An increase in population growth in the Green Triangle Region will generate an increased need for housing, land, and community services and amenities, including schools, health services and sporting and cultural facilities.

12.1.2. Provision of Services and Facilities

New investment in the Green Triangle Region will create challenges and opportunities for councils in setting budget priorities to provide infrastructure and services to towns and regional centres.

Increased population will potentially have an impact on a number of other service providers, including State Governments with respect to education, health and community services, utility providers with respect to energy, water and sewage and retailers and manufacturers with respect to commercial shopping and industry expansion respectively.

ACTIONS

The Victorian and South Australian Governments and councils will monitor the socio-economic issues associated with the blue gum timber industry and other industries in the Green Triangle Region, and ensure these issues are addressed through best practice mitigation and management measures (e.g. the use of the Intelligent Access Program for heavy vehicle regulation).

Councils, in consultation with the Victorian and South Australian Governments, will review or develop strategic plans for key regional centres in the Green Triangle Region that face challenges and opportunities around projected population growth and freight movement on the transport network. This includes statutory planning provision for industrial activity precincts and appropriate buffers around residential areas in major centres such as Portland, Hamilton and Mount Gambier.

The Victorian and South Australian Governments and councils will continue to consult with regional communities to ensure that social amenity and regional development opportunities are captured. Funding opportunities from the Commonwealth's Regional and Local Community Infrastructure Program and other funding sources such as the Victorian Small Towns Development Fund, Victorian Regional Infrastructure Development Fund and the South Australian Regional Consultative Committee should be developed.

12.1.3. Provision of Housing and Land

Councils will need to ensure the appropriate amount and location of residential and industrial land is made available and consider housing affordability within the region. Housing growth and demand will need to be researched and monitored carefully.

Councils will also need to support and assist new businesses establish in the region by providing information on adequately zoned land, the availability of utilities and services, and information regarding labour markets.

12.1.4. Cross Council Collaboration

Cross-council collaboration will need to occur in the Green Triangle Region in Victoria and South Australia to ensure socio-economic, community development and employment issues are considered on a regional rather than individual council basis. This will help ensure economic prosperity is shared throughout the region.



12.2. Community Development Opportunities

The harvesting of timber plantations and the export of large volumes of woodchips will create new prosperity and development within the Green Triangle Region.

The Victorian and South Australian Governments and councils believe this prosperity should be shared among and across communities within the Green Triangle Region, through the creation of new job opportunities, higher levels of regional income and new opportunities for community development.

It is also important to mitigate and manage the impacts of the freight task on residential areas and neighbourhoods. This Action Plan sets out a number of measures to do this, including regulatory arrangements and protocols to govern the use of HPFVs. In developing these initiatives, this Action Plan has been guided by Timber Coupe Harvest Plans developed by the timber industry and best practice arrangements in other locations, including the Great Southern Region of Western Australia.

12.2.1. Community Consultation

The Victorian and South Australian Governments and councils need to continue to consult closely with regional communities to ensure social amenity impacts from the blue gum freight task and other commodities are minimised and regional development opportunities maximised.

This includes identifying and prioritising projects for funding from State and Commonwealth Government programs such as the Commonwealth's \$300 million Regional and Local Community Infrastructure Program.

Timber companies, too, should be encouraged to develop close-working relationships with councils, catchment management authorities, the media and other relevant agencies. Close-working relationships will ensure timber companies keep abreast of current community issues so emerging issues associated with the timber industry can be managed accordingly.

Appropriate community consultation strategies could include:

- attending public meetings;
- addressing community and stakeholder group meetings;
- speaking with neighbours; and
- liaising on a regular basis with local councils, catchment management authorities and other relevant agencies.

The importance of adequate community consultation was highlighted in the Great Southern Region of Western Australia where councils and haulage industry operators indicated the community consultation phase with regard to haulage operations, particularly hours of operation for HPFVs was poorly conducted. The community was not adequately consulted or briefed on the operation of HPFVs and this resulted in a less than ideal outcome for haulage operators and the community. As a result, haulage companies do not have approval to operate HPFVs to cart woodchip at night in the region. This means haulage companies must operate standard size freight vehicles (typically semi-trailers) overnight, resulting in a larger number of trucks on the road at night.

The Western Australian example highlights the need for timber companies in the Green Triangle Region to ensure the appropriate level of community consultation is undertaken, particularly with regard to haulage operations. Research shows communities are willing to support the deployment of HPFVs if it means fewer truck movements in their towns and cities.

12.2.2. Communication Strategy

During the establishment, management and harvesting of timber plantations, timber companies come into contact with a large variety of stakeholders, including individuals, local government, community groups and Government organisations. It is therefore important that timber companies establish an appropriate communication strategy to deal with stakeholder communication and consultation.

It is anticipated timber companies will notify their neighbours of impending harvesting operations in accordance with the published *Good Neighbour Charter for Commercial Tree Growing in the Green Triangle Region of South East South Australia and South West Victoria*.

The *Good Neighbour Charter* was prepared by the Green Triangle Regional Plantation Committee (GTRPC) to enhance communication between commercial tree farmers, their neighbours and community groups.

Compliance with the *Good Neighbour Charter* demonstrates a commitment to the following communications principles:

- close-working relationships with neighbours and community groups on local land management issues; and
- communication of ownership and contact details for commercial tree farms via signs erected at strategic points along tree farm boundaries.

In addition to the *Good Neighbour Charter*, timber companies have developed their own communications strategies, such as Timbercorp's Stakeholder Communication and Consultation Strategy.

An appropriate communication strategy will help timber companies provide effective communication with stakeholders, identify concerns and deliver clear messages to all stakeholders.

12.2.3. School Bus Routes

Timber companies will need to work closely with councils and school bus operators to ensure no issues arise through the conflict of haulage routes and school bus routes.

School bus routes will need to be identified prior to harvesting operations commencing and should be included in the Timber Harvesting Plans that are to be provided to councils at least 12 months prior to the start of harvesting.



13. Implementation of the Freight Action Plan

Harvesting of blue gum plantations in the Green Triangle Region is expected to commence in the latter half of 2009, making the successful implementation of this Action Plan a priority.

Given that, the Victorian and South Australian Governments and councils will continue to work closely with the timber industry in the region to ensure the projects and strategies in this Action Plan are successfully implemented, managed and monitored.





An Implementation Monitoring Group (IMG) comprising representatives from VicRoads, the South Australian Department for Transport, Energy and Infrastructure (DTEI), local government and industry will be established to monitor and review the rollout, implementation and prioritisation of works for the projects and strategies in this Action Plan.

A Green Triangle Region Freight Summit will also be convened by the Victorian and South Australian Governments bi-annually on an ongoing basis in order to seek continued input from councils and industry on the management of the freight task within the region.

Acknowledgements

The following individuals and organisations contributed to the development of the Green Triangle Freight Action Plan:

- **Green Triangle Freight Action Plan Steering Committee**

Mr Lachlan McDonald, Executive Director, Intergovernmental Relations, Victorian Department of Transport (Joint Chair)

Mr Mark Elford, Director, Road Transport Policy and Planning, Policy and Planning Division, South Australian Department for Transport, Energy and Infrastructure (Joint Chair)

Ms Anita Mousa, Project Manager, Intergovernmental Relations, Victorian Department of Transport (Secretariat)

Mr Stephen Smith, Deputy Director, Intergovernmental Relations, Victorian Department of Transport

Mr Flett Steele, Director, Road and Traffic Management, Transport Services Division, South Australian Department for Transport, Energy and Infrastructure

Mr Don Hogben, Director, Vehicle Management and Safety, VicRoads

Mr Ken Russell, Director, Asset Management, VicRoads

Mr Syd Deam, Group Manager for Planning and Economic Development, Glenelg Shire Council

Mr Malcolm Macpherson, Director, Physical Services, Moyne Shire Council

Cr Marcus Rentsch, Mayor, Southern Grampians Shire Council

Mr Tim Neeson, Executive Manager, Economic Development and Tourism, Southern Grampians Shire Council

Mr Jim McKay, Chief Executive Officer, West Wimmera Shire Council

Cr Steven Perryman, Mayor, City of Mount Gambier

Mr Rob Forgan, Executive officer, South East Local Government Association, South Australia

Mr Grant King, Chief Executive Officer, Limestone Coast Regional Development Board

- **Green Triangle Regulatory Efficiencies Taskforce**

Mr Duncan Elliott, Regional Director, South Western, VicRoads (Chair)

Mr Peter Taylor, Manager, Registration and Freight Strategy, VicRoads

Mr Rene Jones, Policy Analyst, Victorian Department of Transport

Mr John Jarrad, Senior Project officer, Vehicle Policy, Road Transport Policy and Planning, Policy and Planning Division, South Australian Department for Transport, Energy and Infrastructure

Mr Jon Whelan, Regional Manager, Eastern Region, Transport Services Division, South Australian Department for Transport, Energy and Infrastructure

- **Green Triangle Region Councils**

Glenelg Shire Council

Moyne Shire Council

Southern Grampians Shire Council

The South East Local Government Association of South Australia (SELGA), consisting of the City of Mount Gambier and the Districts of Grant, Kingston, Naracoorte, Lucindale, Robe, Tatiara and Wattle Range

West Wimmera Shire Council

- **Department of Innovation, Industry and Regional Development, Victoria**

- **Regional Development Victoria**

- **Department of Primary Industries, Victoria**

- **Great Southern Limited**

- **Iluka Resources Ltd**

Mr Peter Beilby, General Manager Murray Basin

- **ITC Limited**

- **South West Fibre Pty Ltd**

Mr Steve Walker, Manager

- **South West TAFE**

Mr Joe Piper, Chief Executive Officer

- **The Australian Rail Track Corporation Ltd (ARTC)**

Mr David Marchant, Chief Executive Officer

- **The Green Triangle Regional Plantation Committee**

Dr John Kellas, Executive Officer

- **The Port of Portland**

Mr Scott Paterson, Chief Executive Officer

Mr Jim Cooper, Special Projects

- **Skills Victoria**

- **South East Resource Information Centre (SERIC)**

Mr Terry Strickland, Executive Manager

Mr Darren Schunke, GIS Officer

- **Timbercorp Limited**

Mr John Kiely, Communications Manager, Forestry Division

- **VicRoads**

- **Victorian Freight and Logistics Council**

Ms Rose Elphick, Chief Executive Officer

References

- Cooperative Research Centre for Forestry, *Growth in Blue Gum Forest Harvesting and Haulage in the Green Triangle 2007-2020*, Jon Lambert, Woollybutt Pty Ltd December 2006
- Department of Infrastructure Victoria (2004) *Re-opening and Rail Gauge Standardisation Heywood-Mount Gambier Rail Line*. George Deutsche Consulting Pty Ltd. February 2004
- Department of Infrastructure Victoria (2007) *Victorian Rail Freight Network Review*
[http://www.transport.vic.gov.au/DOI/DOIElect.nsf/\\$UNIDS+for+Web+Display/54E33823FAE1EF29CA2573B7001B1E96/\\$FILE/RFNR-FinalReport.pdf](http://www.transport.vic.gov.au/DOI/DOIElect.nsf/$UNIDS+for+Web+Display/54E33823FAE1EF29CA2573B7001B1E96/$FILE/RFNR-FinalReport.pdf)
- Department for Transport Energy and Infrastructure South Australia (2006) *A Plan for Freight Transport for the South East Limestone Coast Region of South Australia*.
http://www.transport.sa.gov.au/pdfs/freight/A_Plan_for_Freight_Transport_for_the_South_East.pdf
- Department of Transport Victoria (2008) *Report to Infrastructure Australia on Victoria's Infrastructure Audit*, August 2008
- Department of Infrastructure Victoria (2007) *Growing Victoria's Economy* July 2007
- Forest Industry Training Network (FITNET), in conjunction with Government of South Australia, South Australia Works, Limestone Coast Development Board (May 2008), *Forestry Green Print; Forest Industry Workforce Requirements, Green Triangle Region 2006 -2011*
- Government of South Australia (2008) *A Skills Strategy for South Australia's Future*, 19 March 2008
- Green Triangle Regional Plantation Committee (2006) *Economic Impact of the Timber Industry in the Green Triangle Region 2003/04*, prepared by EconSearch Pty Ltd for Green Triangle Regional Plantation Committee Inc, 30th June 2005
- Green Triangle Regional Plantation Committee (2007) *Submission Rail Freight Network Review* 15 August 2007
- Green Triangle Regional Plantation Committee (2008) *Comments for Proposed Timber Industry Strategy* 18 May 2008
- Green Triangle Regional Plantation Committee (2004) *Good Neighbour Charter*
- Limestone Coast Railway (2008)
<http://www.limestonecoastrailway.org.au/>
- Maunsell AECOM *Green Triangle Rail Re-establishment – Addendum*, March 2006
- Murray Basin Update, Briefing to Ministers Lynne Kosky and Tim Pallas, Portland, 16th July 2008
- Port of Portland, *Port of Portland Land Use Strategy*, May 2008
- Schirmer, Williams, Borschmann & Dunn (2008) *Living with land use change: different views and perspectives*. March 2008
- Timbercorp *Haulage Traffic Management Plan*, 16 May 2007
- Timber Towns Victoria, Local Roads funding strategy <http://www.planningplantations.com.au/assets/pdfs/management/transport/TTVLocalRoadsFundingStrategySouthWest.pdf>
- Victorian Government, Department of Infrastructure, *Victorian Ports Strategic Framework*, November 2004
- Victorian Government, Department of Transport, *Victorian Transport Plan*, December 2008
- Victorian Government, Department of Transport, *Freight Futures*, December 2008
- Victorian Government, Department of Innovation, Industry and Regional Development, *Securing Jobs for your Future*, Skills Victoria, August 2008



