

VICTORIAN RAIL FREIGHT NETWORK REVIEW

Switchpoint:

The template for rail freight to revive and thrive!

"RFNR recommends that the Government provides a fit-for-purpose regional rail freight system at reasonable cost, which is capable of efficiently transporting known freight volumes at prices competitive with road, providing a platform for future growth which is economically, socially and environmentally responsible. Essentially it is a template for rail freight to revive and thrive and our unanimous recommendations reflect this."

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EXECUTIVE SUMMARY

The Victorian Government's buy-back of the State's regional rail network from private operators in May 2007 created the opportunity for the Government to better manage and invest in Victoria's rail freight network, and to facilitate the achievement of Victoria's policy target of 30% freight to ports on rail by 2010. The freight-only network has been allowed to deteriorate over the last 15 years and is in extremely poor condition. On some sections of the track, rail speeds are restricted to 20 kilometres per hour! The Victorian Government decided an urgent review of the rail freight network was required, for which the Rail Freight Network Review (RFNR) Committee was appointed in July 2007.

At the outset, RFNR noted that there has always been government support for freight rail construction and operation as well as rail passenger services, since its inception in the mid 19th century.

The review has been undertaken in the context of various trends and developments that are affecting the network's viability. These include declining rail volumes, particularly at the periphery of the network due to silo rationalisation, an extended severe drought and reducing crop volumes. In addition there are increased efficiencies in the road sector supporting an ongoing mode shift to road and growing volatility in export grain volumes, which is the major and sustaining rail task on Victoria's regional freight network; along with increases in track access charging and an accumulated backlog of track maintenance. The result is a freight rail system that operates at low speeds and with customers experiencing unacceptably low service levels on most of the network, causing a major shift towards trucks.

Apart from system inefficiencies, the export grain harvest – the primary Victorian freight task – is highly volatile and has suffered catastrophically from drought in the past two seasons. This has created a negligible demand for rail transport of grain causing major losses to the primary rail operator, Pacific National, and the grain industry. This highlights the difficulty in servicing this task with rail and as a consequence the operator is already redeploying resources and rolling stock to more profitable tasks in other states. The grain industry is also in a state of flux with ongoing deregulation of export grain and industry fragmentation, increasing containerisation of grain and increased demand in the domestic market. Fragmentation of the grain industry only makes it more difficult for rail, given the lack of regularity and consistency of demand required to make it attractive for operators. RFNR has addressed a number of options in this regard.

The modal shift to road will be exacerbated if road transport is used for the emergence of new freight tasks such as a quadrupling of woodchip volumes in the 'Green Triangle' region west of Portland, mineral sands from the State's north-west and potential new brown coal products from Gippsland. These tasks are contestable by rail subject to the provision of suitable infrastructure and more appropriate access charges for rail users.

RFNR has concluded that there is a better way forward for the remaining Victorian rail freight network and in doing so rejects the status quo. The existing Victorian passenger, Australian Rail Track Corporation (ARTC) and AusLink networks are assumed by RFNR to be retained into the future. The lack of investment in the rest of Victoria’s freight-only network is accelerating a switch to road with major environmental, social and economic consequences. Closure of the freight-only rail network would result in at least 100,000 extra truck trips on Victoria’s regional roads each year with dramatic implications for road safety, the environment and economic efficiency.

It is highlighted that the majority of grain truck movements occur over a relatively short period from December to February. Even in an average harvest year this will result in the key roads around the ports of Geelong and Melbourne becoming severely congested and to a lesser extent around the port of Portland.

RFNR recommends that the Government provides a fit-for-purpose regional rail freight system at reasonable cost, which is capable of efficiently transporting known freight volumes at prices competitive with road, providing a platform for future growth which is economically, socially and environmentally responsible. Essentially it is a template for rail freight to revive and thrive and our unanimous recommendations reflect this.

RFNR considers that there is a pressing need to rehabilitate the track on nominated sections of the network to restore sustainable operating speeds. This would be prioritised into four categories:

1. **Platinum (the base network)** – track that will continue to be maintained by virtue of being part of the V/Line passenger network, the ARTC interstate network or the declared AusLink network (which includes the Mildura line). No additional rehabilitation funds are required for these sections of line, and the Mildura line will only require ongoing maintenance and sleeper renewal every five years, given the \$73 million already committed by the Federal and State Governments to its upgrade. Additional works on these lines, such as longer or new passing loops or upgrades to signalling, axle loads or speeds could be considered in the future where this is justified by new or increased freight tasks.
2. **Gold** – first priority for rehabilitation and restoring to original track classification (generally Class 4 or 5) outside the Platinum base network. This forms a core grain network which maximises use of the base network and is the minimum network which can support a sustainable above rail freight operation.
3. **Silver** – high priority lines to be rehabilitated to original track classification (Class 4 or 5), conditional on grain industry collaboration and commitment to improve overall supply chain efficiency to support rail. This should be done by establishment of a sustainable fleet of rolling stock; further centralisation and upgrading of silos and port facilities with longer sidings, fast train loading, fast truck turnaround and extended operating hours.

4. **Bronze** – minimum maintenance line sections, which are not designated for priority rehabilitation at this stage. These rail corridors should be maintained clear of vegetation to maximise the opportunity for restoration should the case be made to do so in the future. These lines could be upgraded to Silver should the grain industry collaboration and supply chain efficiency initiative establish the case for restoration to their original track class or new traffic emerges.

The initial Gold rehabilitation program requires an investment by Government estimated at \$36.4 million. Investment in rehabilitating the Silver network at an estimated cost of \$47.1 million is conditional on collaboration and **prior** commitment by grain industry participants on the relevant line sections, not only to improve efficiency and control of the supply chain, but to ensure there is a viable number of locomotives and grain wagons to support the grain task relevant to that network configuration. Ongoing routine maintenance of the gold and silver networks is estimated at \$18.4 million per annum during the rehabilitation period. The Bronze network requires minimal maintenance which for the next three years has been estimated at \$2 million.

The recommended total investment package requires capital of \$83.5 million and three years ongoing maintenance cost of \$57.2 million for a total of \$140.7 million.

After the initial rehabilitation, there is also an ongoing requirement for annual routine maintenance of the freight-only network, together with major periodic maintenance (mainly re-sleepering) in the order of \$25 million annually beyond 2011.

In recommending targeted investment in the below rail freight network to rehabilitate the track it needs to be recognised that the below rail network is unviable and requires ongoing significant support, due to the relatively low and seasonal volumes on it. However, the condition of the network and associated infrastructure are fundamental to the viability of above rail operations, which need to be profitable to be able to provide adequate rolling stock. In addition issues such as speed of the network and efficiency of grain loading and unloading facilities, number of train sets able to be economically utilised, train cycle times and availability of train paths all depend on network condition. In short substantial rehabilitation of the track must be accompanied by the provision of adequate rolling stock.

Above all else competitive rail access fees are critical to the viability of above rail operations.

The current rail access charges are not competitive with the charges on the existing ARTC network and are substantially higher than charges on southern NSW branch lines. In these circumstances, rail cannot compete with road, elements of which are subsidised. The high access charges are discouraging grain industry investment and having an adverse effect on rail operator viability and their future in Victoria. RFNR recommends the urgent and long-term reduction in access charges to a competitive and sustainable level in order to immediately arrest the trend to road freight and send a strong positive signal that the Government supports the rail freight industry.

Reducing the access charges, along with the major track rehabilitation program indicated, and the establishment of a collaborative and supportive institutional framework, will enable a sustainable and viable rail freight system in Victoria.

RFNR believes that in the event that grain industry collaboration fails to produce the desired results, there are various options for government intervention available to mandate grain to rail which could be contemplated. There are similar examples of successful government intervention in Australia and Canada to facilitate desirable rail freight outcomes.

RFNR further highlights that the trend towards hubbing will continue for both general freight and grain. RFNR supports a series of initiatives to accelerate and enhance regional and outer metropolitan hubbing adjacent to the rail network, all of which will help the Government's stated policy objective of 30% of freight to Victoria's commercial ports to be on rail by 2010.

All of the above, along with the more detailed recommendations that follow will produce a more competitive and efficient rail freight network that is able to play a significant part in the transport task relating to the dynamic economy of Victoria. In short it will help create an environmentally responsible win-win situation for government, industry and the community, and for both rail and road operators.

RFNR further contends there is real urgency attached to revamping the freight rail system for environmental reasons and because the network is at a critical juncture; do nothing and the rail freight system will quickly collapse. Energy prices are at record levels, world oil production has peaked and reducing the carbon footprint of freight transport is vital along with reducing the cost and impact of road congestion by revamping the freight rail system.

In RFNR's view the solution to Victoria's rail freight challenge requires a total supply chain approach – the system is such that a weakness or inefficiency in any of the components of the supply chain will affect the viability of rail operations. The principal components are track condition, access, rolling stock availability, regional and port rail terminal characteristics and the rail freight rate required to commercially sustain above rail operations and its competitiveness with road freight rates. The Victorian rail freight system has systemic inefficiency and as a result is uncompetitive – all issues have to be addressed in An holistic pro-active way to sustain Victoria's rail freight network.

Finally on the north-east corridor, there are long standing negotiations between the State and the ARTC to expand standard gauge capacity on the Melbourne-Sydney rail corridor. This can be facilitated by leasing the broad gauge track between Seymour and Albury to the ARTC and converting it to standard gauge, bringing forward decisions on standardising the branch line from Benalla to Oaklands.

There are detailed recommendations on all of the preceding proposals contained in this report.

RECOMMENDATIONS

1. The Government immediately sets access fees at levels competitive with the ARTC and Southern NSW rail access fees for a period of at least five years.
2. The Government simplifies the access regime and determine the ongoing role of the Essential Services Commission in rail freight access, following the recent changes in lease arrangements.
3. RFNR strongly recommends that priorities and levels of investment are established in the Victorian Rail Freight Network, by implementing a new set of categories: Platinum, Gold, Silver and Bronze:
 - a. Platinum (the base network) – track that will continue to be maintained by virtue of being part of the V/Line passenger network, the ARTC interstate network or the declared AusLink network (which includes the Mildura line).
 - b. Gold – first priority for rehabilitation and restoration to original track classification (generally Class 4 or 5) outside the Platinum base network. This forms a core grain network which maximises use of the base network and is the minimum network which can support a sustainable above rail freight operation.
 - c. Silver – high priority lines to be rehabilitated to original track classification (Class 4 or 5), conditional on grain industry collaboration and commitment to improve overall supply chain efficiency to support rail.
 - d. Bronze – minimum maintenance line sections. These lines could be upgraded to Silver should the grain industry collaboration and supply chain efficiency initiative establish the case for funding.
4. Rehabilitate the full Gold core grain network at a capital cost of \$36.4 million. Rehabilitate the Silver network (approximately \$47.1 million) conditional on collaboration and prior commitment by grain industry participants on the relevant line section not only to improve efficiency and control of the supply chain, but to ensure there is a viable number of locomotives and grain wagons to support the grain task relevant to that network configuration. Retain the Bronze network with minimum maintenance which could be upgraded to Silver if warranted due to freight volumes and investment.
5. In the case of Bronze lines where application is made, the government consider the option of offering sections of these lines to local communities or groups similar to the Canadian model.
6. The Government considers legislating to enable elements of the grain freight task to be regulated to rail in the event of no collaboration and commitment being forthcoming from the grain industry as the network would otherwise revert to Platinum and Gold only.

7. Establish a Grain Logistics Taskforce to coordinate the grain supply chain and collaboration on grain handling and marketing with a structure based on the Hunter Valley Coal Chain Logistic Team model (HVCCLT) established in 2005.
8. Pacific National be approached to provide reasonable access to locomotives and wagons for rail operators engaged in servicing the grain industry, given the Government's investment in track improvements and reduced access charges. PN to make available the minimum number of train sets (estimated at seven) required to service an average grain harvest.
9. RFNR supports a series of initiatives to accelerate and enhance regional and metropolitan hubbing adjacent to the rail network:
 - a. further consolidate the grain storage infrastructure to facilitate larger volume throughput and storage including rapid loading and unloading
 - b. as part of the approach to grain hubbing, steps be taken to reduce train cycle times to the benchmarks of 24 hour and 36 hour cycles
 - c. further encourage the development of regional intermodal hubs such as Dooen (Horsham), Geelong, Goulburn Valley Logistics Centre (GVLC – Shepparton), Wodonga Logic, Mildura/Merbein and Morwell/Maryvale
 - d. facilitate the development of common user outer metropolitan hubs at locations such as Altona, Broadmeadows/Somerton and Dandenong to rapidly move large quantities of containers to and from ports. Such facilitation to include reservation of appropriate corridors
 - e. improve intermodal hubbing further by the provision of a catchment zone in which over dimensional vehicles can operate with exemption to the nearest regional intermodal hub within a maximum distance of an 83 kilometre radius.
10. A Government entity be given responsibility for championing and developing rail freight business including facilitating collaboration between stakeholders and aggregation of smaller freight tasks to create viable freight tasks.
11. Establish a Rail Freight Development Fund (RFDF) to facilitate rail freight opportunities via (seed) capital contributions to rail freight facilities with funding allocations conditional on commitment from a rail operator and freight forwarder/shipper.
12. Establish an ongoing asset management regime to maintain network at designated speeds post capital rehabilitation, including routine and major periodic maintenance on track and bridges. Continue an ongoing audit framework to monitor track condition.
13. Standardisation of the whole Victorian Rail Freight Network cannot be justified at this time. However, opportunities should be taken in the future to standardise where new and increased traffic tasks eventuate and where there is the need to eliminate break of gauge ramifications. All rail networks to major ports should include standard gauge capability.

14. Provide for broad and standard gauge rail access on a new direct alignment, as part of the Port of Hastings upgrade.
15. Continue the upgrading of the Mildura and north-west branch lines compatible with future gauge standardisation to potentially capture mineral sands and other traffics.
16. On commitment by Iluka Resources of sufficient tonnages of mineral sands from the Euston mines to their major separation plant at Hamilton or on the emergence of other significant freight tasks:
 - a. rail be designated as the preferred mode of transport for carriage of mineral sands to the separation plant
 - b. standardise the north-west lines as required to accommodate the traffic
17. In respect of the long standing negotiations between ARTC and DOI, RFNR urges their early completion with a view to increasing capacity on the Melbourne-Sydney rail corridor, by leasing the broad gauge track from Seymour to Albury to ARTC and converting it to standard gauge. Concurrent with this, a decision must be made to standardise the otherwise isolated branch line from Benalla to Oaklands.
18. Complete standard gauge rail access improvements at Geelong through the ARTC:
 - a. remove Gheringhap shunt
 - b. duplicate Gheringhap to North Geelong from south of Moorabool River Bridge.
19. RFNR supports continued operation of the Maroona/Portland line to the deep water port of Portland, RFNR currently designates this as a Gold line and further urges Government facilitation of a new multi-user rail receival terminal at Portland.
20. Enhance rail access to the Port of Melbourne by completing the following projects:
 - a. the Dynon Port Rail link
 - b. provide additional access into port, through the provision of additional track sections known as 'W track' and 'Missing link'
 - c. continue to upgrade the rail-port interface within East and West Swanson docks.
21. Simplify driver accreditation and rail safety processes to encourage above rail competition (via reduced barriers to new entrants) and improved rail freight market share.
22. Urgently review the process for accreditation, insurance and other compliance issues with a view to simplifying and reducing the cost of the regulatory burden on rail operators.
23. Establish a 'one stop shop' for track access to simplify the process for above rail operators.
24. Give higher priority to capacity for freight trains on the Melbourne metropolitan rail network by improving integration with metropolitan rail system planning.

25. Review detailed train and track operational procedures to remove outmoded practices via better crew flexibility and/or upgraded infrastructure.
26. Government consider an approach by the Premier to approach the South Australian Premier, to set up an interstate taskforce to investigate the transport interconnectivity between South Australia and Victoria, including the economic feasibility of transferring the Pinnaroo to Tiego (Ouyen) line to the South Australian Government and the Penola–Mt Gambier–Rennick line to the Victorian Government.
27. An examination is made of the externalities of each major transport project in Victoria particularly relating to rail and road comparisons.
28. Ensure that as part of the evolving national carbon trading scheme, a rail freight carbon/externality scheme be established to capture externality benefits of rail freight compared with road freight.
29. This report and its recommendations contribute to the State Freight and Logistics Strategy currently being developed as well as provide input into the Eddington inquiry.

COMMITTEE MEMBERSHIP AND TERMS OF REFERENCE

The Victorian Government appointed the following Committee to undertake the review of the Victorian rail freight network:

- Hon Tim Fischer AC (Chair)
- Peter Wilson AM (Deputy Chair)
- John McQuilten MLC (Ret.)
- Bruce McGowan
- Kerry Murphy
- Rob Spence

The Committee was supported by a Department of Infrastructure (DOI) secretariat comprising John Clarebrough, Director, Freight and Logistics; David Hill, Senior Policy Officer, Rail Freight Strategy and Projects; Bernadette Foley, Project Coordinator and Chris Tehan, a Senior Associate from Evans and Peck.

An internal review group consisting of representatives from the DOI, VicRoads and VicTrack also met on several occasions throughout the review to provide guidance and support to the secretariat.

The Committee undertook detailed analysis of rail freight operations and the economics of the freight only rail network to develop its recommendations. An assessment of the condition of the Victorian freight-only rail network was also undertaken to identify the maintenance backlog on each line and the cost of restoring each line to a suitable standard which may be its original class.

The Committee's **Terms of Reference** required reporting on:

- potential future levels and composition of rail freight traffic, principally on those parts of the intrastate network dedicated to freight
- the network's present physical condition and maintenance needs
- issues arising from rail freight forecasts, maintenance cost benchmarking, track standards and above rail costs for grain transportation
- the network's future configuration from a public interest perspective including promoting economic growth and any impact on the road network and grain handling facilities
- the relative priority of lines for upgrade and/or standardisation
- any inter-related issues in respect of the State's passenger network
- the role government and stakeholders can play in contributing to the long-term network viability
- the potential for freight trends towards intermodal rail and road freight

The review of the Victorian freight rail network was commissioned in the context of various trends and developments that are affecting the network's commercial viability including:

- a significant track maintenance backlog that has accumulated over the last 15 years resulting in low speeds and uncompetitive service levels on most of the freight-only rail network
- inefficient approaches to road and rail freight infrastructure pricing resulting in uncompetitive rail access charges
- the increasing variability of grain harvests and the consequent impact on freight volumes
- a thinning of rail traffic at the periphery of the network due to recent silo rationalisation and investment programs
- increasing pressure on rail volumes from the continual introduction of bigger and heavier trucks (68 tonne B-doubles and potentially 90.5 tonne, 36.5m B-triples)
- inconsistent management and maintenance of the network

This report to the Minister for Public Transport, the Hon Lynne Kosky MP, is the culmination of extensive consultations and analysis to develop recommendations for the sustainable operation of Victoria's rail freight network.

Stakeholder consultation

The Committee has undertaken the review in a highly consultative manner over a relatively short five month period, including meetings and public hearings in centres throughout regional Victoria and considering over 100 written submissions. It also met several times with a stakeholders' reference group, which had representatives from:

- V/Line
- AWB GrainFlow
- GrainCorp
- Australian Barley Board / Australian Bulk Alliance
- Victorian Freight and Logistics Council
- Victorian Farmers Federation
- Alliance of Councils for Rail Freight Development
- Pacific National / Asciano

STAKEHOLDER MEETINGS AND SUBMISSIONS

The issues raised in submissions and at outreach, stakeholder and reference group meetings have been categorised and summarised in the following sections as well as analysed by RFNR and its consultants.

Appendix A contains a full list of submissions to the committee. Hearings were conducted in Melbourne with industry organisations and an industry reference group reported to the Committee.

Community consultation and site inspections were undertaken in the following towns and cities:

- Ballarat
- Bendigo
- Boort
- Geelong
- Horsham
- Lockhart, NSW
- Maryborough
- Mildura
- Morwell / La Trobe Valley
- Oaklands, NSW
- Portland
- Shepparton
- Wodonga

It is clear from the consultations that there is overwhelmingly strong support for rail freight by the general community, industry, farmers, local government and port authorities. This is a message that should not be ignored.

1 INTRODUCTION

"The demise of rail freight reduces community safety and threatens environmental values"

*- Alliance of Councils for Rail Freight Development, August 2007
submission to Rail Freight Network Review*

It needs nerves of steel to stay the course and find the right template for the Victorian rail freight network, just when drought has decimated the largest rail freight earner, export grain. There are some predictions that a large portion of grain freight may never return to rail, even in a bumper harvest, due to the current trend to switch from direct export sales to the domestic feedstock and milling market and the emerging ethanol market.

Conversely there is expansion in container freight movement across Victoria in both intrastate and interstate markets. There is expected to be a quadrupling of woodchip tonnages from the 'Green Triangle' region and ongoing growth in log and paper traffic from the north-east and Gippsland and potentially large rail tasks from Gippsland. It has also been submitted to RFNR that north-west Victoria and south-west NSW are on the cusp of expansion in mineral sands movement near Ouyen north of Robinvale. These deposits will require transport to Hamilton for separation with the processed output going to Portland for shipment. The NSW deposits lend themselves to export through Victorian ports as long as an efficient rail system exists.

The challenge is to capture the contestable component of this growth on rail.

Rising fuel prices and 'peak oil production', increasing traffic congestion and choke points in and around Melbourne and predictions of an increase in the general freight task have made the need to increase rail's role in the transport chain even more critical. Consequently, the State Government set a target of 30% rail mode share to ports by 2010 to reduce the amount of truck traffic in and around Victoria's major ports.

In other countries, rail infrastructure is being expanded particularly in North America and Europe. On both continents, governments and the private sector are promoting increased use of rail because of its lower environmental impact than road transport. In the USA, revenue from intermodal rail operations now exceeds that from coal trains. Private investment in US rail freight infrastructure was US\$8.2 billion in 2006-07 reflecting confidence in the future of rail freight by the major railway companies.

The case for rail freight is formidable for economic, social and environmental reasons. However, the major requirement for this to happen is a template that allows rail freight to operate efficiently.

RFNR has identified a number of reasons to support the retention of rail freight in Victoria and arrest its decline:

- **Economic efficiency** – best practice rail freight operations, where the whole supply chain is integrated and each component is efficient, provide a major contribution to the economy. Rail freight can significantly reduce transport costs, particularly fuel use, and the cost of transport infrastructure. Fixed rail infrastructure in Victoria is a greatly under-utilised, but potentially valuable asset – improvements to the supply chain will lead to more freight on rail, better use of these assets and better economic efficiency.
- **Competitiveness** – rail is strongly preferred to road transport by many exporters because of its capacity to more efficiently deliver large volumes over significant distances in single movements to port. However, the rail freight network’s declining condition means this advantage may not continue if transit times and reliability worsen. Lack of investment in rural and regional rail infrastructure reduces customer choice and leads to road as a monopoly transport provider. Apart from the need to maintain a rail freight network to support the Government’s target of 30% rail mode share to port, rail freight also has significant economic value because of the improved export competitiveness it provides. In general, rail struggles to compete with road on short-medium hauls with small tasks and road struggles to compete with rail on longer haul or higher volume tasks.
- **Congestion** – in and around the big cities of Victoria, choke points have emerged to the extent where they continue well beyond the morning and evening peak periods. A double track commuter railway line is roughly equivalent to a ten-lane freeway. Similarly, a freight railway is the equivalent of a multi-lane freeway carrying trucks. Rail is the only mode of transport that offers a capability to ease congestion in and around ports and to mitigate impacts on smaller communities in regional areas. The alternative of larger road footprints (including potentially double-decking freeways e.g. Bangkok) is expensive and increasingly unacceptable. On the grounds of congestion alone, rail freight offers the best alternative particularly for freight.

“There is a real dialogue going in a lot of Departments of Transport, Federal and State, about rail as part of the solution for solving congestion and highway funding issues”

- Mike McClennan, Norfolk Southern Railway (USA) Vice President of Intermodal Marketing, September 2007, Trains magazine p11.

Recently in the United States, Norfolk Southern Railway launched a US\$2 billion project to revamp the 'Crescent Corridor' between Memphis and New Orleans in the west and New Jersey in the east. The project will save over 12 hours in transit time with the objective of capturing one million truckloads annually. The state of Virginia has dedicated US\$40 million to the project with the aim of diverting trucks from congested interstate highways. The project will see work begin next year and is aimed at offering an alternative solution to massive highway expansion along the corridor (Trains magazine, September 2007). This type of 'Public/Private' project is now being considered by several other US states and railroads to expand rail capacity and reduce road congestion.

- **Community impacts** – rural communities are acutely aware of the public safety and amenity impacts caused by trucks passing through their district. The more trucks there are on the road network, the higher the potential for crashes involving them. Evidence submitted to the committee by regional communities reflects extreme concern about increased truck use because of the effect this has on regional road safety particularly on roads used by school buses. Similarly, in Melbourne, heavy truck volumes often traverse unsuitable routes, with severe amenity and safety impacts on residents, particularly in the inner-west.

A NSW inquiry provided considerable detail on the community impacts of road freight as well as other costs of road transport. These issues are similar in Victoria.

"Increased costs for road construction and maintenance and for the side-effects of road haulage – noise, exhaust emissions and accidents – are not generally reflected in the prices paid for road use."

- NSW Grain Infrastructure Advisory Committee report on Rail/Road Options for Grain Logistics, January 2004, p2.

- **Cost shifting** - the increasing size and volume of trucks on local government roads in rural areas has caused a significant deficit in maintenance of local roads. Smaller shires with declining rate bases are unable to fund the growing rehabilitation needs of many local roads. Further neglect of the freight railway network will worsen the local road problem significantly and put further financial pressures on small shires, with resultant flow-on effects on the economic sustainability of small communities. This issue was identified as long ago as a 1991 Industry Commission rail inquiry.

"The costs avoided by the government rail operator (Australian National) by closing the line were transferred to local and state governments instead in increased road damage costs."

- Industry Commission Report No.13: Rail Transport 1991, Volume 1, p115.

"Upgrading the rail network would reduce the proportion of council budgets deployed for road infrastructure, enabling those funds to be used for much needed community and social infrastructure and services to benefit the community more widely."

- Rural Councils of Victoria, August 2007 submission to Rail Freight Network Review.

- **Energy efficiency** – rail is the safest and most environmentally friendly form of land transport. Per tonne of freight hauled, rail requires less than one third of the fuel of road transport.¹ New record high oil prices have emerged in the first decade of the 21st century, and while there will continue to be fluctuations, this trend is expected to continue due to growing demand in China and India. Consequently, the need to move freight in more fuel efficient ways has become more imperative than ever. To quote from an Australasian Railway Association paper:

¹ *Australian Transport Facts 1998*, Apelbaum Consulting Group, pp55 & 73.

*"One freight train between Melbourne and Sydney replaces 150 semi-trailers and saves 45,000 litres of fuel and 130 tonnes of greenhouse gases compared with road haulage. Rail freight is still twice as energy efficient as road even after fuel use has been included for rail line haul and road pick up and delivery, to and from rail terminals."*²

Similarly, every train transporting 2,200 tonnes of grain 400 kilometres from the State's north-west to the Port of Geelong replaces 50 B-double trucks, uses 8,000 litres less fuel and saves 23 tonnes of greenhouse gases.

Rail is still more energy efficient than road even when the 'full fuel' cycle is considered taking into account fuel use from all aspects of the transport task including line haul, pickup and delivery and energy production and distribution.³ Even the biggest and heaviest trucks – triple road trains weighing 124.5 tonnes – are nearly 50% more energy intensive than rail on a full fuel cycle basis.⁴

Road freight will never be as energy efficient as rail because a steel wheel on a steel rail has just one seventh of the friction of a rubber tyre on a road. A 1991 Federal committee found that increased use of rail could result in "...significant reductions in carbon dioxide emissions and large savings in Australian consumption of liquid fuels for transport services."⁵

- **Carbon Footprint** – Australia ranks 16th among major greenhouse gas producing nations, but has the highest emissions per capita in the world and has the fourth highest greenhouse gas emissions per capita from transport in the world. This stems from Australia's reliance on road transport, with the highest volume of road freight per capita in the world.⁶ By 2020, greenhouse gas emissions from articulated trucks are expected to increase 54% while non-electric rail freight emissions are projected to increase 28% (mostly freight).⁷

"Achieving significant reductions in transport is an unprecedented challenge for the sector and will require both technological advances and major policy initiatives. In the shorter term, there are many cost effective actions that can make a valuable difference. A single instrument, especially a carbon tax, would in many ways be ideal."

- Jack Short, Secretary General of the OECD based International Transport Forum, presenting at Michelin Challenge, Shanghai, November 2007.

² Rail fuel consumption of four litres per 1,000 gross tonne kilometre (PNL); road fuel consumption of 49.3 litres per 100 kilometres (*Updating Heavy Vehicle Charges – Technical Report*, National Road Transport Commission 1998, p76); assumes road pick up and delivery of 20 kilometres.

³ ARRB Transport Research, *Research Report ARR 318*, 1998, p50.

⁴ Ibid, p50.

⁵ Australian Senate Standing Committee on Industry Science and Technology, 1991.

⁶ *Roads in the Community* – Austroads, 1997, p17.

⁷ Greenhouse Gas Emissions from Australian Transport, BTRE Report 107 2002, pp135, 213.

Under proposals being developed at the Federal level for a carbon trading scheme, there is the opportunity to commercially capture the lower greenhouse gas emissions produced by rail freight per net tonne kilometre of freight compared with trucks which would reward rail freight operators. The aim of a carbon trading scheme is that a carbon emitting business must purchase a carbon dioxide abatement permit (carbon permit) before it can produce carbon dioxide emissions. By pricing carbon dioxide emissions the business will have a commercial incentive to reduce its emissions. Under the proposed scheme, carbon intensive transport will become more expensive relative to cleaner transport modes. This will favour rail transport because of its superior fuel efficiency over road transport.

- **Capacity to handle future freight task** – a number of studies have concluded that the volume of general freight will increase over the next two decades. This is quite separate from rail freight requirements generated by the mining and agricultural (grain export) industries. Efficiently operated rail freight is a major part of the solution to the increasing freight task. For example, most of the freight-only rail network is under-utilised and has the capacity to accommodate more rail freight traffic. In addition, corridors need to be reserved for potential new rail lines in regional and metropolitan areas to provide the opportunity for future rail freight operations.

The stark consequence of continuing neglect of the freight-only rail network is that most rail freight will be on road within three to five years. The one exception to this would be for rail freight on the Mildura (AusLink), ARTC and passenger network. The freight-only rail network will continue to deteriorate until it is inoperable and it is highly unlikely that it will ever be reopened, given the various increasing infrastructure priorities of Federal and State Governments. In the last 50 years in Victoria, there have been 3,016 route kilometres of track closed none of which has reopened.

It is emphasised that failure to support the Victorian freight-only rail network will result in at least two million tonnes of freight transferred to road (100,000 truck trips) annually from regional Victoria to the Ports of Geelong, Portland and Melbourne. If traffic congestion levels in Melbourne are not to be exacerbated, expensive (over \$20 million per kilometre) additional road infrastructure might be required. The Victorian Government sponsored study by Sir Rod Eddington into Melbourne's east-west transport requirements needs to consider the implications of regional rail freight and metropolitan container shuttle trains in alleviating Melbourne's road congestion including the east-west transport task.

There is significant government interest in rail freight throughout Australia, reflecting its importance to triple bottom-line outcomes. Although this is primarily on the interstate rail network between Melbourne, Sydney and Brisbane, regional rail networks have not been overlooked:

- In June 2005, the Federal Government under its AusLink program provided \$15 million towards a \$30 million rehabilitation of the Eyre Peninsula narrow gauge rail network in South Australia. The funding was conditional on a matching contribution from state and local government and industry. In July 2007, the South Australian Government announced the Eyre Peninsula Rail Infrastructure Refurbishment Project comprising the \$15 million AusLink contribution, \$11 million from Genesee and Wyoming, the rail operator, \$2 million from the State Government and the remainder from a new grain levy.
- In June 2006, the Federal and Tasmanian Governments announced a joint \$118 million funding package to upgrade the Tasmanian rail network subject to Pacific National agreeing to invest \$38 million in rolling stock upgrades and replacements. The funding comprises \$78 million in Federal funding and \$40 million in State funding over ten years for track maintenance. Under the terms of the agreement, Pacific National has sold its track back to the State for \$1 with the Government developing an access regime for third party access to the network.
- In Western Australia under the Transport Regulation Act 1966, the Minister for Planning and Infrastructure has the power to regulate product to rail. This power is now being used to regulate the transport of grain, ore and woodchips.

For grain, the use of road transport for the transport of export grain from rail-served sites by rail is via a licensing scheme. Road haul to port must now be approved by the rail company and the Minister in advance. This scheme is scheduled to commence in WA from 1 January 2008. It is a very strong indication of the level of cohesion between grain industry organisations, rail operators and government agencies that is necessary to protect the role of rail in servicing the industry into the future.

The scheme will help maximise the volume available to rail and reduce the ability of marketers to use 'spot' road prices to undermine the viability of the rail system. The scheme also addresses the problem of passive approvals from road authorities to the heavy use of the road system for non-approved vehicles without any frame of reference for decision-making. The Government's willingness to invoke a power, even if lightly used in practice, sends a clear signal to industry and the community that the rail system is the future for grain transport, and this in turn ensures that the grain industry will invest in rail-related assets and improvements.

With regard to ore, the Minister has stipulated that ore mined in WA's mid north-west for export through the Port of Geraldton must be railed to the port if it is within 100 kilometres of a rail line.

In the case of woodchips in the State's south-west, the Minister has stipulated a list of municipalities in which woodchip producers must apply for a licence if the woodchips are to be transported by road to the Port of Bunbury which is the closest port.

- The Queensland and NSW Governments provide financial support for their non-coal network and branch lines.

For all these reasons RFNR has established that there is strong justification for a Victorian rail freight network on economic, social and environmental grounds in accordance with the State's triple bottom-line objectives. Further, RFNR has found there is a template for an ongoing sustainable rail freight system, which identifies priorities for the rehabilitation of the existing grain network. This requires appropriate commitments from industry, stakeholders and government with a framework to capture new freight opportunities to rail.

In forming this view the Committee considered over 100 submissions, met with a wide range of interested organisations, inspected significant amounts of rail infrastructure and conducted hearings and meetings across Victoria. RFNR has deliberated in a dedicated and united way to produce this Report and Recommendations to Minister Lynne Kosky and the Victorian State Government.

2 THE VICTORIAN RAIL FREIGHT NETWORK

2.1 Policy framework

RFNR has undertaken its extensive analysis of the State's rail freight network in the context of a number of Government policies that support improved regional transport infrastructure. Many of these policies specifically support rail freight:

- **Growing Victoria Together** has a goal to 'better link Melbourne and regional ports to industry and agricultural centres across Victoria.' Also:
 - the efficiency and accessibility of our transport system for moving passengers and freight by rail between regional Victoria and Melbourne is critical for regional development
 - the proportion of freight transported by rail to and from ports will increase to 30% by 2010 (presently 16% – regional export grain and containers)
- **Victoria: Leading the Way:** the Government's major policy statement for regional Victoria released in 2005.
 - **Action 2: Improving access to the port** – Efficient intermodal transport of freight is rapidly becoming more critical to meeting the demands of global supply chains. Increasing rail market share at the Port of Melbourne is vital to accommodating future growth, reducing road congestion and improving the overall efficiency of the Victorian freight and logistics sector
 - **Action 4: Building better supply chain links** – Competitive transport, distribution and logistics are crucial to the future growth and success of Victorian businesses and the economy in general. Well-planned infrastructure will provide Victorian companies with opportunities for cost savings and allow better and faster access to markets for Victorian goods
 - **Action 7: Make it happen in provincial Victoria** – Vibrant, healthy regional areas are crucial to Victoria's continued economic success. The Government will maximise the capacity of local communities to take up economic and investment opportunities
 - **Action 9: Exporting for Growth** – One in five jobs in the State is export related and in regional Victoria

The Review's recommendations are intended to provide the basis for a rail freight network that supports the State's policies and its triple bottom-line objectives of economic, social and environmental sustainability.

2.1.1 Industry concerns

Despite these policies, the freight transport sector and the grain industry generally have a perception of lack of commitment, clarity and consistency from the Victorian Government in policies and strategies for rail freight. For example, it was submitted to

RFNR that there is little substance or affirmative action behind the Government's policy objective of 30% rail market share to ports by 2010.

Changes in track management and the myriad organisations involved in the rail transport sector are confusing to industry and create an uncertain operating and investment climate. This discourages innovation and commitment to rail given the high entry and exit costs involved in rail operations arising from fixed infrastructure rolling stock and personnel.

Industry is also concerned that there is no clear direction regarding an overall freight strategy for the State and rail's role in the State's transport task.

However industry has been supportive in respect of the current Government's buyback of the Victorian Rail Freight Network last year, and the formation of RFNR to address ongoing operational and viability issues.

2.2 Ownership and Management Arrangements

2.2.1 Track managers

The Victorian rail network is owned by VicTrack, a State Government corporation. The network comprises:

- the 825 kilometre standard gauge interstate network leased to the Australian Rail Track Corporation for 15 years from 1999 and presently the subject of negotiations for a 45 year lease extension
- the 400 kilometre urban broad gauge rail network leased to Connex, which manages the metropolitan rail network and operates metropolitan passenger services
- the 3,670 kilometre intrastate, non-urban rail network leased to V/Line Passenger, the network access provider and regional passenger operator. This network comprises 1,400 kilometres of combined passenger and freight network and 2,270 kilometres of freight-only network – the latter is the primary focus of this review

In January 1999, the Kennett Government sold the intrastate Victorian rail freight business for \$163 million, to Rail America, a North American company. The sale comprised the rolling stock and business of V/Line Freight and a lease of the intrastate, non-urban rail network for 45 years. The company traded initially as Freight Victoria, then later as Freight Australia reflecting its objective of national expansion.

Rail America subsequently sold Freight Australia, including the track lease, to Pacific National (a joint venture of Toll Holdings and Patrick Corporation) in September 2004 for \$285 million. Toll Holdings purchase of Patrick Corporation in 2006 provided the ability for the Government to buyback the lease from Pacific National. In May 2007, the Bracks Government concluded negotiations to buy back the lease of the intrastate, non-urban rail network for \$133.8 million.

The regional intrastate rail network is now leased to and managed by V/Line, which will enable the State to better manage investment in the network including rehabilitation and upgrades. The Rail Freight Network Review's recommendations would have been difficult to implement under private management of the network.

The State provided \$25 million in 2006–07 for essential track maintenance work on the freight-only network. Government subsidy for rail freight infrastructure recognises that some lines or services may have economic value to the State although they may be commercially unviable to a rail operator.

2.2.2 Rail freight operations

Since the buy-back of the regional rail network in May 2007 the above rail freight operators now operate independently from below rail track management (vertical separation). Vertical integration had previously enabled cross-subsidy between rail freight operations and track management masking the ongoing maintenance required on the network.

Intrastate Victorian rail freight operations are still primarily provided by Pacific National (PN), now a subsidiary of Asciano. Pacific National's general freight business is managed by Patrick PortLink, but the trains are operated by PN. Interstate rail freight operations are provided by PN, Queensland Rail National (QRN) and SCT. In addition there are two smaller rail freight operators El Zorro and Southern Shorthaul Rail which generally provide shunting and maintenance trains, although El Zorro acquired a one year grain haulage contract with AWB GrainFlow in the latter half of 2007.

2.3 Network configuration

The Victorian rail network comprises the broad gauge urban and regional passenger network that is also used by freight trains, the freight-only rail network comprising broad gauge, standard gauge and dual gauge tracks and the interstate rail network comprising standard and dual gauge.

The regional passenger network is maintained by V/Line to passenger train standards with locomotive hauled trains allowed up to 115 km/h (eg Warrnambool, Albury) and V/Locity railcars allowed up to 160 km/h (Regional Fast Rail network).

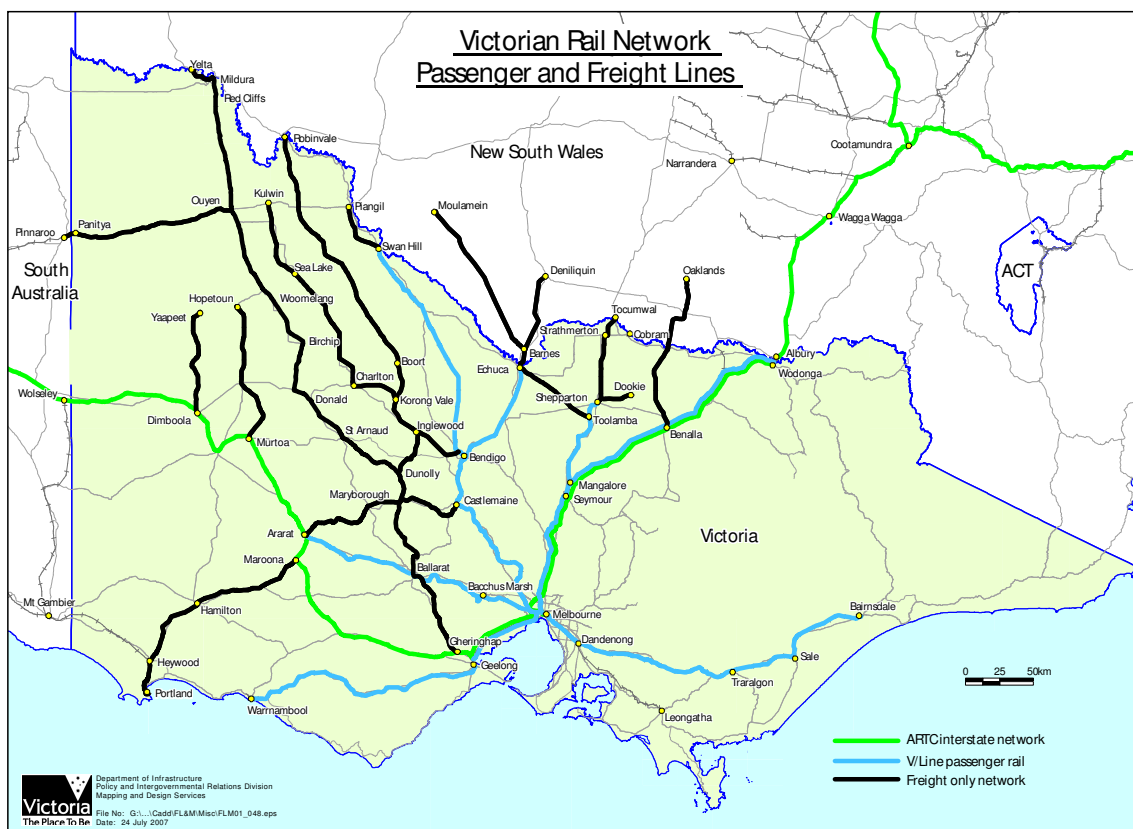
The standard gauge (non ARTC) freight-only lines are in the west of the State and comprise the 171 kilometre Maroona to Portland line, the 83 kilometre Dimboola to Yaapeet line, the 112 kilometre Murtoa to Hopetoun line and the 88 kilometre Maryborough to Ararat line. These all connect with the interstate standard gauge line to Adelaide.

The freight-only network also comprises the 22 kilometre dual gauge line between Dunolly and Maryborough. These lines were made standard/dual gauge to connect with the Melbourne-Adelaide line that was converted to standard gauge in 1995. However, the 87 kilometre Heywood to Mt Gambier (SA) line which connects with the Portland

line was not standardised and remains an isolated section of broad gauge in the State's south-west.

There are also broad gauge lines into the Tottenham rail yards; broad, standard and dual gauge lines into the Dynon freight terminals; and dual gauge lines into the Port of Melbourne illustrating the complexity of Victoria's two gauge rail network.

Figure 2.1 Victorian Rail Network



2.4 Network condition

Prior to 1994, the Victorian regional rail network was maintained on a planned 'steady state' basis after a major maintenance catch-up program in the 1980s. However, in the mid-1990s there was a change in track maintenance practices by the Government. The network was considered over-maintained resulting in cost-cutting and the disbanding of major sleeper renewal gangs. The asset base began to degrade, but was able to rely on the significant amount of work undertaken on it in the 1980s and early 1990s.

When the regional rail network was leased in 1999 there were no specific obligations under the various lease arrangements for the track lessee to maintain the freight-only rail network to any particular standard. The only requirement was for that portion of the network to be returned to the State at a minimum standard of 20 kilometres per hour at a 19 tonne axle load at the expiry of the lease. Consequently, the freight-only rail

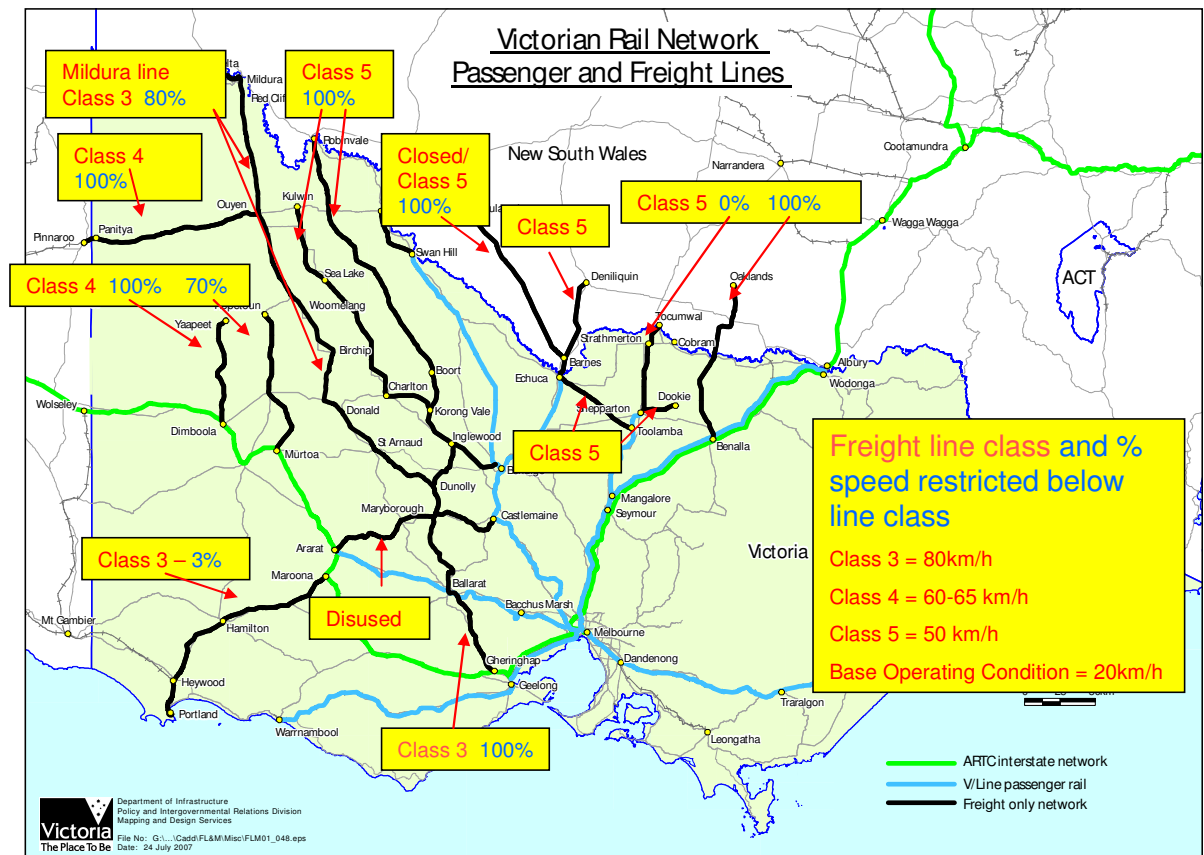
network deteriorated significantly because infrastructure investment or maintenance expenditure conferred little or no short-term benefit to the lessee. Essentially, from 1999 to 2006, there was minimal maintenance on the freight-only rail network other than 'fix when fail' repairs which accelerated transfer of freight to road.

The result of this practice is that some parts of the network are now inoperable (about 10%) and most of the rest is subject to speed restrictions of 50 kilometres per hour or less due to very poor sleeper condition. Generally two to three sleeper replacement cycles have been missed resulting in severe track degradation. Without immediate investment, the condition of the track will continue to deteriorate, adding to the cost of rehabilitation.

"The condition of the network is poor, but somewhat better than might be expected given the substantial absence of major maintenance over a prolonged period. The lines are seriously deficient in terms of the age profile of timber sleepers."

- Asia Pacific Rail, Victorian Freight-only Rail Network Review – Final Report 2007, p8.

Figure 2.2 Condition of freight-only rail network



The effect of this intrastate rail freight network degradation is reflected in the Australian Industry Group's 2006 report *Linking Australia with Global Supply Chains*. The report refers to efficient freight transport and logistics operations being essential to the

effective functioning of industry supply chains because they have a vital economic impact. However, it comments that regional and interstate rail links are the source of greatest dissatisfaction in the logistics industry with only 40% of users believing rail infrastructure and services are adequate. Almost one in five manufacturers was very dissatisfied with the condition of regional rail links.

For example, in the last ten years the container freight train transit time from Mildura has deteriorated from 10 hours to 16 hours on average. As a result, freight has transferred to road, including to Adelaide in order to meet shipping schedules.

"The track has been in a major state of disrepair for some years and to see the track back to its former standard will be an enormous boost to our regional communities all along the track."

- Ken Wakefield, Managing Director, Ironhorse Intermodal, Merbein (Mildura), August 2007.

2.5 Existing freight task

The regional Victorian rail freight task is over five million tonnes per annum comprising:

- export grain (2 million tonnes average)
- export containers (1.8 million tonnes)
- industrial freight – crushed rock and cement (0.93 million tonnes)
- domestic grain (0.3 million tonnes)
- paper products (0.27 million tonnes)
- logs (0.16 million tonnes)

In non-drought years, the most significant component of the Victorian intrastate rail freight task is grain (in tonnes). Large components of the rail network are retained purely to service the grain industry. Changes occurring in the grain industry have a major influence over the future rail freight network.

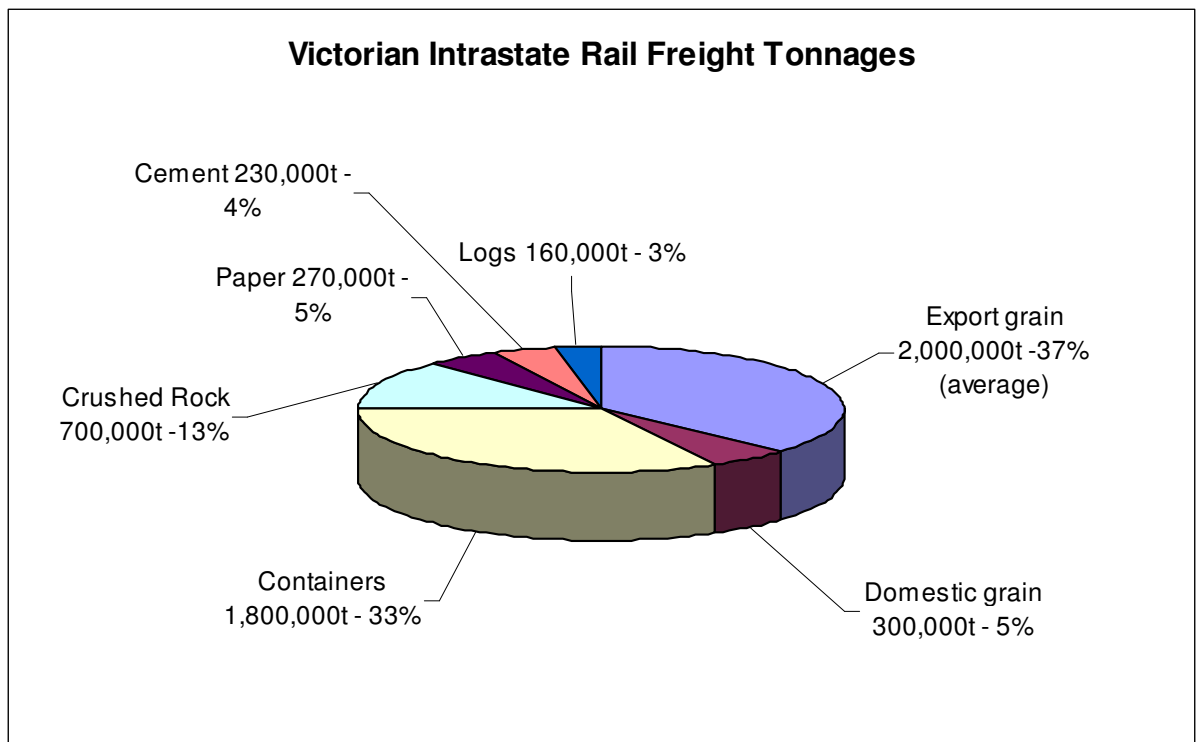
The regional intermodal business is second in terms of significance (in tonnes). This business primarily comprises export containers railed to the Port of Melbourne. Although rail is exposed to considerable competitive pressure from road for this trade, it has grown in recent years partly due to increased containerisation of agricultural products and also because rail can deliver large volumes into port in a single movement compared with trucks.

Container trains are operated by PN from Horsham (grain and hay), Boort (grain and hay), Merbein (horticultural products, grain, mineral sands), Mooroopna (food products), Tocumwal (grain and dairy products), Maryvale (paper products), Warrnambool (dairy and agricultural products) and Griffith/south-west NSW (wine, grapes, agricultural products). These trains operate primarily on regional passenger lines and the ARTC network and do not have a significant influence on the viability of the freight-only rail network in Victoria.

Industrial freight is third in terms of significance (in tonnes) and includes crushed rock, cement and logs. PN operates a stone train twice a day from a quarry at Kilmore East 64 kilometres north of Melbourne to two outlets in Melbourne transporting 700,000 tonnes per year. This is a good example of viable short haul rail operations. Log trains are operated from Bairnsdale (six days per week) and Wodonga (twice weekly) to Midway at the Port of Geelong for export as woodchips.

The Victorian intrastate rail freight task has fallen by an estimated 20% since the late 1990s (before privatisation) despite strong state economic growth. This is attributable to increased road competition (particularly B-doubles), continued government investment in the road network, lack of investment in the rail network, poor service levels, drought and non-rail contestable markets such as feedlots. The only businesses that have increased are export containers and logs. However, this has been offset by declines in grain, petroleum, cement, paper and some dairy products. Gypsum, sand, fertiliser and small lots of freight are no longer carried on rail because of their marginal returns to the operator.

Figure 2.3 Summary of the Victorian Intrastate Rail Freight Task



3 A SUSTAINABLE RAIL FREIGHT SYSTEM FOR VICTORIA

The RFNR committee has developed a number of recommendations to enable the establishment of what it believes to be a sustainable rail freight system for Victoria. The issues and recommendations are discussed in this chapter.

3.1 Access Pricing

Rail access pricing has a critical influence on rail operators' viability because of the effect it has on their cost structure and competitiveness with road transport.

3.1.1 Rail access pricing - background

The current charges for access to the rail network for freight were published by V/Line in June 2007.

The level of these charges was established during negotiations with Pacific National for the Government to reacquire the intrastate rail network. The charges are based on an 18% discount to those rates proposed by Pacific National to the Essential Services Commission (ESC) during the ESC's consideration of PN's rail access arrangements.

On the basis that no freight was lost to rail, the current level of charges was expected to raise 40% of the efficient cost of managing and maintaining the network for freight in an average grain year. However, road competitiveness and the volatility of the grain harvest directly affect the access revenue generated and the funds available to maintain the network. Access revenue will never be able to cover operations and maintenance of the rail system, but access charges do affect the ability of rail to maximise market share.

For bulk grain, the charges are substantially higher than those charged by ARTC on the interstate lines and those charged for access to the southern NSW grain lines. An exception is the Maroona-Portland line for which the access charge was established at a level that enabled the Port of Portland to compete with Geelong for export grain freight.

The access charges for general freight are set at 25% of the bulk grain charges in recognition that general freight, in particular containerised freight, could not afford higher access charges given truck competition.

PN published access charges in August 2006 significantly lower than those it had proposed to the ESC during the review. These rates were modelled on the rates charged for access to the southern NSW grain lines.

The current Victorian access charges are up to 250% higher than the charges published by PN at that time.

3.1.2 Current Situation

Submissions to the committee, evidence provided during the extensive consultations across regional Victoria and the analysis undertaken by consultants to the review indicate that the level of access charge currently sought by the Government has caused and will continue to result in a loss of freight from the Victorian intrastate rail network. Furthermore the level of access charge will act to discourage rail operators from retaining or investing in rolling stock in Victoria, threatening the viability of the network.

Even with a high grain harvest and the existing rail network, the current access charges would make a rail operator's return marginal and unacceptable given the business risks involved.

GrainCorp, for example, has advised that high access prices and poor network condition are making road transport more competitive with rail for grain transport particularly for domestic grain. A \$20 million plan it had developed with PN to improve grain train productivity by 25% has been deferred pending a resolution of the access pricing issue.

"If there is no change in the current policies (access and network condition), GrainCorp expects an estimated 1.4 million tonnes of grain will be transported by road which could have been transported by rail"

- GrainCorp submission to RFNR, August 2007

A further example of the impact of the current Victorian rail access pricing regime is provided by grain transport from AWB's Pinnaroo silo to the Port of Geelong. South Australian rail operator Genesee and Wyoming transported 11,000 tonnes of grain to the Port of Geelong via Tailem Bend in four standard gauge trains. This was instead of the grain being transported by Pacific National via Ouyen on Victoria's broad gauge network. Despite this route being 224 kilometres longer, the significantly cheaper access charge on the ARTC network meant that it was more cost effective than the shorter route on Victoria's intrastate network. The broad gauge line from Ouyen to Pinnaroo is restricted to 20 kilometres per hour and the Mildura line has many speed restrictions of 50 kilometres per hour or less meaning that the longer route via Tailem Bend was also quicker.

The difficulty with using an ESC approach in rail occurs because the ESC traditionally sets pricing guidelines for natural public (regional) monopolies like the water utilities whose customers have no alternative supplier, and who need some protection from monopoly power from their sole supplier. These circumstances do not fit rail freight because of the lack of monopolistic market power amongst rail operators. Moreover this market is characterised by strong price making leadership from the road freight competitors. Evidence to RFNR made it very clear that growers, grain handlers, and other rail freight users are extremely responsive to minor variations in posted and actual transport prices and will readily switch from one mode to another in order to capture the margin benefit. In no way does this parallel what another public utility under ESC coverage can do in Victoria.

Consequently, RFNR recommends that the Government immediately set access fees at levels competitive with the ARTC and southern NSW rail access fees for a period of at least five years. There should also preferably be a slight discount or advantage over the pricing of trucks. RFNR acknowledges the reduced access revenue from the reduced rates, but does not see the merit of setting access charges at levels which will not generate any revenue because the business has shifted to road.

Evidence to RFNR also made clear that users are requesting government to give more policy consistency in this area. Accordingly RFNR believes that this new access pricing philosophy and quantum should be adhered to for at least the next five years. If governments are concerned to reduce the subsidy inherent in this approach, the best way to solve that is for the very high subsidy in long range road transport to be progressively reduced so that rail access pricing with its triple bottom-line advantages over road can be given more pricing headroom. The current approach does not allow this and in fact is pushing customer substitution the other way, in sharp contrast to the Government's policy objective of 30% of port related freight on rail.

3.1.3 Access regime administration

The rail access regime is administered by the Essential Services Commission (ESC). This includes conditions for management of the network, such as:

- ring fencing vertically integrated operators and access providers
- negotiation guidelines
- network management guidelines
- capacity use of the network
- pricing guidelines and principles

V/Line, which manages the regional rail network, is subject to government approval processes for its level of investment, quality of infrastructure and the rigors of the government budgeting to ensure pricing and expenditure levels meet the needs of government.

Connex operates the access arrangement and pricing structures for freight trains on the metropolitan network, but this also has an element of government overview through metropolitan train franchising agreements, with a new franchising agreement to be finalised during 2008.

The current level of regulation imposes multiple layers of complex control. Budgets for access providers need to be approved by government based on an infrastructure standard and revenue income, but remain subject to further regulation under the rail access regime to meet accounting and quality standards for the business.

These arrangements can be simplified and improved with benefits to rail operators and access providers. The opportunity exists to review the scope and parameters of the access regime and re-assess the relevance of each component as a result of the network buyback.

However, there remains a need for an independent arbitrator as part of the regime and this element of regulation should remain as a method of resolution for rail operators and access providers.

3.1.4 Road cost recovery

The Productivity Commission's 1996–97 Annual Report noted that '*...historically, road user charges have not accurately reflected the true cost of road usage.*' Subsequently, in a March 1998 press release, the NRTC acknowledged that: "*Under the current charges, operators that travel lower distances than average, or 'run light', are paying more than they should and operators that travel higher distances and operate at maximum payloads are paying less than they should.*"

Subsequently, the Productivity Commission 1999 Report *Progress in Rail Reform* found that "*the existing road user charging system for heavy vehicles under-recovers road costs attributable to classes of vehicles that compete directly with railways. This confers a competitive advantage on long-distance road transport operators.*"

A similar finding was noted in the 2007 Productivity Commission inquiry into *Rail and Road Freight Infrastructure*:

Finding 5.11 – *The current road user charging system results in significant over- and under-recovery within some vehicle classes. Vehicles travelling longer than average distances and/or carrying heavier than average loads are, all else equal, 'cross-subsidised' by other vehicles within the class. Similarly, vehicles that travel more than average on higher unit cost roads (such as regional and local roads) are, all else equal, 'cross-subsidised' by those using lower cost parts of the network.*

Consequently, present Victorian rail access charges need to be considered in the context of road cost recovery and rail operator viability and the overall impact of both factors on rail freight market share.

The increasing size and efficiency of trucks, with more widespread use of B-doubles, and even a B-triple operation for Ford between Geelong and Broadmeadows (under a special VicRoads permit for the 83 kilometres involved), is further undermining rail's competitiveness.

Recommendation 1: The Government immediately sets access fees at levels competitive with the ARTC and southern NSW rail access fees for a period of at least five years.

Recommendation 2: The Government simplifies the access regime and determine the ongoing role of the Essential Services Commission in rail freight access following the recent changes in lease arrangements.

3.2 Grain network

Export grain is a significant part of the Victorian intrastate rail freight task averaging nearly 40% of tonnage and 60% of the total intrastate gross tonne kilometres (gtks). Large components of the present rail network are retained purely to service the grain industry. The changes occurring in the grain industry through new super-sites and closure or reduced use of smaller, limited service storage silos are part of a trend towards rationalisation of the grain handling system. This has a critical influence over the shape of the sustainable intrastate rail network as rail services to ports are concentrated on fewer sites for increased rail efficiencies and greater economies of scale at the grain terminals.

3.3 Historical and current status

The grain industry is currently undergoing an unprecedented level of change and upheaval, brought about by a combination of deregulatory forces and severe climatic changes. These forces are resulting in changes to industry structure and financial performance across the nation and in Victoria. The logistics and transport sector is being strongly affected by both types of change, and the traditional means of handling and transporting wheat and other major crops are being challenged.

The industry has emerged from a sustained period of relative prosperity and stability which ended in the late 1990s. The period from the 1960s to the 1990s was essentially a time of steadily improving yields and constant service provision to growers from government authorities, both state and federal.

Grain marketing, both domestic and international, was handled by federal (in the case of wheat) and state (other grains) marketing boards, and pooling mechanisms tended to insulate growers from some of the more volatile market factors. Bulk handling was managed on a state basis, either by grower co-operatives or state authorities, and these companies had long standing relationships with marketing boards and the government rail transport authorities.

Rail was the dominant mode of transport, particularly for export volumes, and the rail authorities worked closely with bulk handlers to clear the initial harvest 'overflow' volumes from country silos, then systematically work the export surplus to port. Freight prices were negotiated on a 'network' basis, often with long standing cross-subsidisation arrangements between sites. Rail authorities did not seek full cost recovery on services, or apply rigorous business case assessments of track maintenance and upgrade projects.

The stability of this system was lost with the deregulatory moves affecting all commercial parties to it from the late 1990s, under national micro-economic reform policies. In a short space of time, the industry was transformed by:

- the corporatisation and privatisation of the major rail freight authorities, and the separation of above and below rail activities

- competitive pressure on rail as well from road transport
- the consolidation and privatisation of east coast bulk handlers
- the privatisation and deregulation of statutory marketing boards

The commercial landscape for grain logistics has changed dramatically as a result. Rail transport of grain has been exposed to the true economic conditions of this business, as well as loss of stability in customer relations. Severe competitive behaviour between bulk handlers and marketers in pursuit of vertical integration benefits resulted in a very short-term approach to rail transport service partnerships.

The probable loss of the AWB single desk arrangement for wheat marketing by early 2008 marks the end of this period of change and the beginning of new commercial arrangements in the grain industry.

From a rail perspective, privatisation and open access has resulted in minimal interest by small operators in the grain business. Since the buy-back of the rural track network from Pacific National, however, one niche operator, El Zorro, has contracted to run two trains for GrainFlow on the standard and broad gauge networks for the 2008 season. PN retains the rest of the traditional fleet and export service capacity. PN is under internal cost pressures to minimise its exposure to grain task seasonality and to deploy versatile resources into profitable growth traffics in NSW and elsewhere.

3.4 Infrastructure and logistics issues

Victoria is characterised by relatively modest volumes spread thinly over an extensive rail network, particularly in the north-west, where there are six grain lines in close proximity. The rail freight volumes are generally too small to sustain Victoria's density of rail network, as it creates unviable rolling stock utilisation. However, it does provide relatively short road haul distance from farm to silos. The relatively short rail haulage distances in Victoria intensifies the need to get all parts of the logistics chain right for rail to be viable.

There are significant economic, social and environmental reasons to improve rail service levels by fixing the track. This will enable above rail operators to be more competitive with road and attract new business to rail while retaining existing business. Better service levels and train cycle times improve rail operator viability by improving train utilisation and reducing costs. This, in turn, provides better service to farmers and improves their export competitiveness.

However, a range of issues affecting the grain logistics chain were highlighted to the committee viz:

- grain exporters are reliant on rail as ports do not currently have the capacity to handle trucks, nor can trucks deliver the large volumes quickly enough at peak times to meet shipping schedules
- extremely poor track condition and train speeds, creating inefficient cycle times, poor rolling stock utilisation and high crewing requirements

- desirable train cycle times of 24 to 36 hours depending on silo location are unable to be achieved
- deteriorating local roads from increasingly large trucks affecting truck efficiency from farm to silo
- increasing community cost of trucking due to poor quality local roads and lack of availability in peak times, which in turn is reducing viability of export grain and increasing trend towards serving domestic market and on-farm storage
- fewer grain silos which has increased cost of truck transport to railhead, particularly in peak times, reducing the ability of farmers to utilise their own smaller trucks as they are unable to fulfil the turnaround times required to clear their harvest
- variable truck turnaround times at smaller silos
- variable silo storage capacity and ability to service a single block train
- variable train loading speeds at silos
- limited rolling stock and driver availability affecting ability of trains to service remote or inefficient locations
- train management practices and equipment
- the ongoing availability of rolling stock particularly locomotives
- slow and unreliable transit times decreasing rolling stock utilisation
- poor rail operational reliability and regularity of service, meaning grain trains get allocated the worst train paths because rail operators cannot commit to using them
- freight customers have been able to use the spot road freight market to reduce volumes available to rail and retain price pressure on operators
- slow and inefficient loading and unloading facilities particularly at the Port of Portland
- lack of integration and collaboration across the rail supply chain caused by fragmented ownership and control of silos, ports and rail infrastructure
- lack of effective customer partnerships

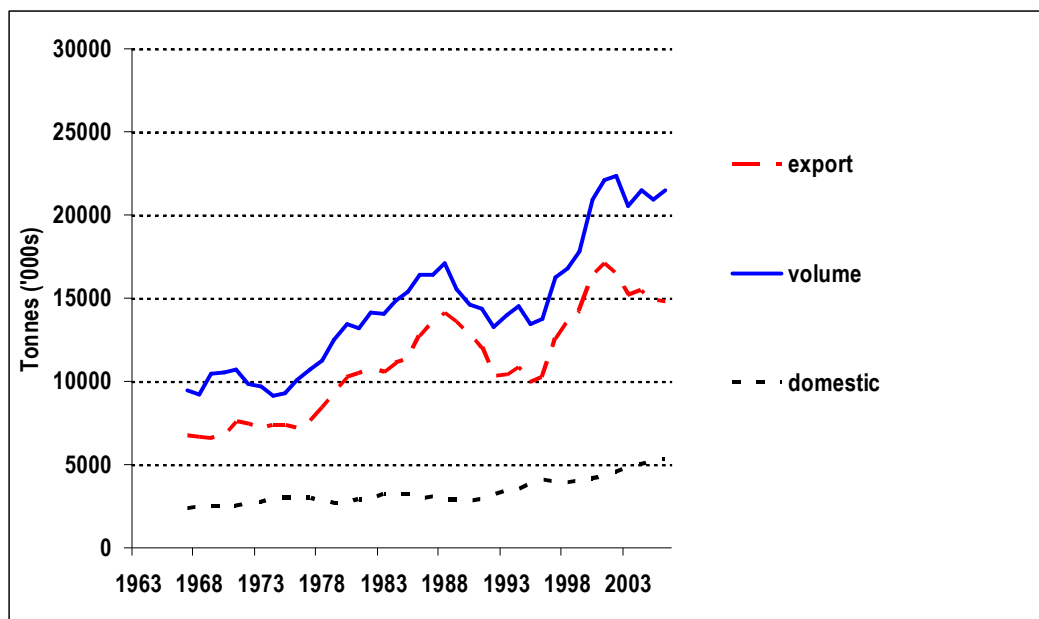
The viability of smaller rural communities is affected by the increasing consolidation of silos, which is an inevitable outcome of the drive to improve rail efficiency. Korong Vale, for instance, was a busy passenger and freight hub in the 1970s, which is now simply a rail junction of the Robinvale and Kulwin lines with a single set of points.

3.5 Underlying freight demand and grain harvest volatility

Grain production has always been highly variable, but trended upwards from the 1970s to the late 1990s. More recently, average production has stabilised and more frequent drought events have increased the uncertainty over the annual crop size. Winter rainfall has become measurably less reliable across the southern parts of the continent.

The Victorian export grain freight task varies greatly each year, largely in accord with variances in production volumes. The export task is typically the residual volume from each harvest not required by the domestic market and its share of the state's total grain production has tended to fall in recent years. Figure 2.4 shows the historical trend in wheat volumes across Australia. In Victoria, the domestic market is made up of the feedlot sector (and smaller livestock producers) and the human consumption market (primarily wheat, canola and malting barley). Human consumption is very steady, growing annually with general population growth, while feedlot demand is more sensitive to global grain price and is lower in extended drought periods.

Figure 2.4 National wheat production and consumption trends (five year rolling average)



There remains great uncertainty as to future grain volumes due to climate change and decreasing rainfall. Volatility in the export grain task is being further exacerbated as the proportion of the total grain consumed by the domestic market increases – feedlots, human consumption and the emerging ethanol market. The introduction of genetically modified crops may stabilise grain production and the export grain market.

3.6 Recent freight flow trends

Since 2000, there has been a substantial increase in the capacity of the rail-based grain storage system across Australia. In Victoria, seven major new sites have been constructed (by ABA and AWB), offering extra storage and throughput capacity as well as efficient rail-loading. In the meantime, GrainCorp has also made some investments in upgrading major sites, while closing smaller ones. There has also been an increase in the use by farmers of on-farm storage, allowing them to bypass the costs of the central storage systems, and to supply the domestic market, in particular, directly by road vehicle. The bulk handling sector has, therefore, continued to respond to competitive pressures, and still commands a high proportion of total production.

The rail system still has access to most of the volume stored through the central systems. Rail access is, in fact, a major competitive asset for the bulk handling companies over the on-farm alternative. The ongoing rationalisation of the traditional silo system is tending to concentrate volumes into larger sites, which usually have better loading speeds and siding lengths. In general, however, Victorian sites have slow load speeds and short sidings and are not conducive to modern rail operations.

Over the last seven years, rail operators have moved away from network pricing, towards site-based prices reflecting discounts for rail loading efficiency. This has assisted newer sites draw growers' volumes from longer distances than in the past.

The consolidation of rail operations into a single NSW/Victorian company has removed the pressure to differentiate on this basis. Accordingly, prices have increased markedly over the last three years after several years of reduction. The remaining operator, PN, now seeks to maximise its cost recovery wherever possible, to counter the inevitable impact of seasonal demand on its business. Consequently, the freight advantages once held by the newer sites are dissipating.

Previously, rail freight contracts have been negotiated by grain marketers, notably AWB. Under current market conditions, however, it is the bulk handlers that are best positioned to contract on risk-sharing terms suitable to the rail operators. AWB GrainFlow has its contract with El Zorro, and GrainCorp has considered similar arrangements with PN.

Rail competes with road transport for haulage of grain to the domestic and export locations. Road is advantaged in the domestic market as there are few consumers with suitable rail sidings, thus ensuring expensive double handling costs for rail operators. Export terminals, however, are set up for rail, while road transport is generally less convenient and more expensive to unload. Freight customers, however, have been able to use the spot road freight market to reduce volumes available to rail and retain price pressure on operators.

Overall, rail's share of the export task should remain strong into the future, so long as underlying cost issues can be managed so that service levels can be maintained. These cost issues are substantial, however, and relate to the following factors:

- irregular demand (seasonal and variable over the course of any year)
- slow track speeds and archaic train management practices and equipment
- declining locomotive availability and quality
- slow and inconvenient loading and unloading (particularly at Portland)
- lack of effective customer partnerships

However, there remains no doubt that rail is the most efficient way to transport the export grain task given its suitability for bulk freight and its ability to meet ship loading schedules. Road freight simply does not have the capability to transport large quantities of grain quickly and efficiently. There would also be serious social and amenity issues if the export grain task was transported by truck.

3.7 Grain logistics cost modelling

A comprehensive operational cost model of the Victorian export rail freight system and task has been constructed to provide a technical basis for RFNR's recommendations. The results are based on a wide variety of unit cost assumptions and operational templates to demonstrate the differing financial impacts of changes to a number of below- and above-rail factors in search of an optimum network and service level.

The model is a geographic representation of the rail system and associated silo networks used to convey export grain, as well as the road links from all silos to port. It attributes train loading and operating characteristics to all sites and lines in order to generate information on average cycle times for trains servicing all areas. Unit cost estimates for all aspects of road and rail transport are used to generate total estimated train costs. The model uses 9 years of historical grain receipt data to calculate the demand for rail services in a given year to compare a given rail freight price with a modelled road freight price at each site to allocate the volume between the modes.

The model accommodates several different network rationalisation scenarios, and reallocates all tonnage from sites without direct rail access under these scenarios, by road either direct to port or to nearby suitable sites for rail loading. The costs of such transfers are accounted, and the model again estimates the capture by rail of these reallocated tonnes in competition with the direct service by road to port.

The model is built to readily handle requests for variation to a range of factors including access prices, number of trains available, harvest size, cycle time efficiency (i.e. loading/unloading hours of operation) etc.

A range of scenarios were examined which led to the following observations:

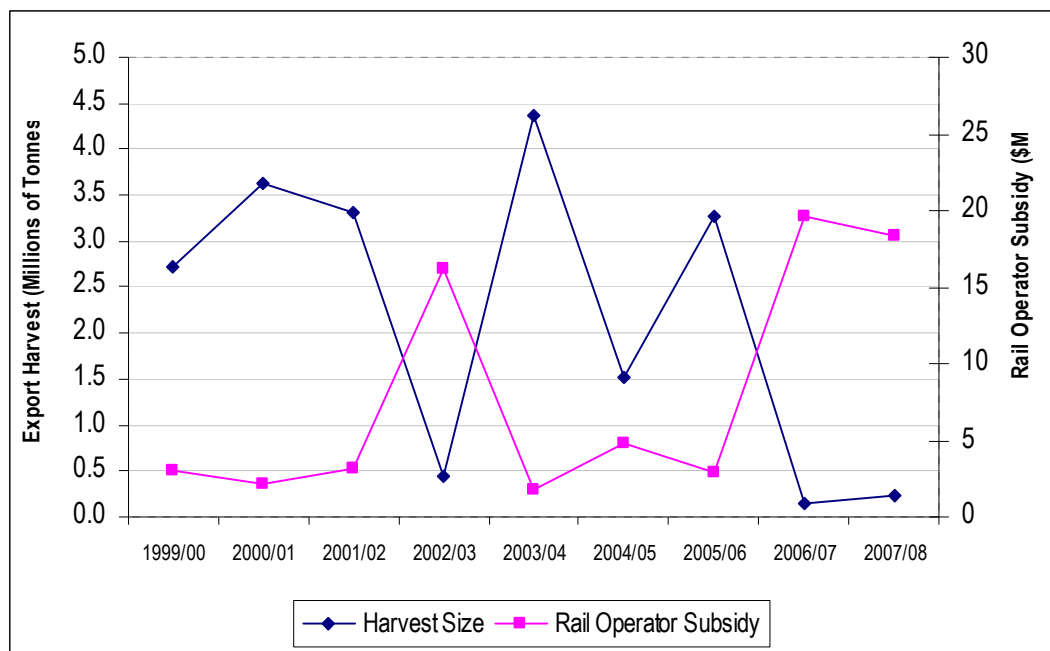
3.7.1 Train operating costs

- rail operating margins are positive but minimal in years where there is an average or better export task and a small number of trains committed, providing the track is rehabilitated
- these positive margins, however, depend on significant reductions in access charges from the current levels applying to grain freight
- rail operator returns fall off dramatically in years where volumes fall below the average. This is the critical issue, and cannot be balanced by modelled efficiencies or further access charge reductions. The lack of regular volume is the single most important factor to rail operator viability
- restriction of the train fleet size limits the exposure to fixed cost in poor seasons, but leaves the rail operators unable to capture much of the volume available in the larger years, which would otherwise compensate for losses in the poor years. There is no one optimal fleet size which appropriately balances the losses in the poor years with the benefits in the good years. (The model makes the assumption that trains and staff are essentially dedicated to the task and cannot be augmented

by other resources in peak seasons – this reflects the current pragmatic state of the Australian rail industry)

Figure 2.5 below shows the **estimated theoretical** level of operational subsidy required (to achieve a nominal 15% return) at access rates which are equivalent to NSW levels (and recommended by RFNR), for actual tonnages over the past nine years in Victoria and with the estimated train sets available in Victoria from now on (2 SG and 5 BG trains). This shows that operators will experience losses below approximately around 1.5 million export tonnes per annum. The volatility from year to year and large losses in the last two seasons suggests that export grain is not commercially viable business in Victoria over a reasonable period. Note that with the current access charges, the model indicates that the operator could not have made positive returns in the past nine years.

Figure 2.5 - Estimated theoretical rail operator returns* in Victoria, 1999 – 2007 with seven trains available



* subsidy required to achieve 15% return

The highly seasonal and variable nature of the freight task remains the single most important limitation on rail viability. The fixed costs involved in retaining a worthwhile number of trains and staff through the low production years are substantial causing heavy losses. These can be lowered through keeping the numbers of committed trains low, but then this limits the overall capacity and reduces the definable benefits gained from upgrading substantial branchline tracks. A risk in keeping only a few trains is that they will be deployed mostly to clear selected high-return sites, and not necessarily serve the deeper branchlines where growers might benefit most from them.

There is no clear least-cost equation regarding the optimal number of trains to be provided – the more trains available, the greater the benefit in the good seasons, and the greater the cost in the poor seasons.

It should be noted also that the number of trains allowed for in the model (i.e. up to 3 standard gauge and 8 broad gauge sets) may not be feasible in reality. While sufficient PN wagon sets probably currently exist in the short term, there is strong evidence that locomotive power will continue to be siphoned away from the grain business. Both PN and any new smaller operators will struggle to find sufficient good quality locomotive power to resource export grain trains in future. This will have an impact on overall capacity, service quality and maintenance costs.

3.7.2 Track and network issues

- network reduction increases the risk of grain freight using road direct to port. The costs of double handling grain via road/rail transfers increase the competitiveness of road transport, particularly for sites located at distances of less than 350km from port. The model allocates this tonnage towards road, leaving trains under-utilised and exposed to high fixed cost components
- network reductions do, however, increase the likely attractiveness of a business case to support rail upgrades on remaining track
- a substantial network reduction would also increase the likelihood of 24 to 36 hour cycle times from most sites if bulk handlers improve their loading and unloading hours. This does have a significant positive impact on rail operator returns, and assumes an orderly managed approach by the entire logistics chain towards the efficiency of the rail system

3.7.3 Road costs

- capital upgrade requirements for regional roads if export traffic shifts substantially from rail to road are very hard to identify and in practice have a subjective element
- rail 'legacy' costs are different to the road 'legacy' cost since they result in speed restrictions and eventual closure. Road legacy costs are less dramatic in their impact and can be sustained over longer periods
- based on VicRoads figures, a one-off \$47m (plus \$12m for bridge upgrades - total \$59m) would be considered necessary to bring to standard the routes required *if there is a substantial transfer of export tonnage to road*. This figure also probably reflects deficits already observed on some routes. Note this estimate is based on the situation where the network was reduced, and rail service capacity (i.e. trains) was to fall to the point where a substantial proportion of the export task shifted to road for the full journey to port, or to a nearby railhead, on a permanent basis. The issue of the extent of the current road 'legacy' cost is not considered here, although it is relevant to the greater concern about rural infrastructure serving the grain industry

- additional routine maintenance of between \$5 million and \$10 million per year depending on network configuration and harvest size
- most local roads carry traffic from farm to silo. The impact of loss of rail lines on local roads varies across the network. Loss of rail services in the Boort-Manangatang area would affect local roads more than any other line
- in the event that the track network was substantially reduced, but a high level of rail service could be maintained, the impact of regional and local roads would be relatively small. Thinning of the network would still leave most sites well within 100km of a suitable road/rail transfer point. Much of the additional trucking distance would be on major highways already built to suitable standard. Only a relatively small number of C class main roads and local roads would require capital upgrading. This issue, however, does warrant further study.

3.7.4 Externality costs

Externality costs are allocated across all tonne-kilometres travelled by road and rail under each network and harvest size scenario modelled. Values used here are derived from the working documents used to support the AusLink (2006) transport funding programs.

A deeper literature search exposes the significance of a seminal European study by consultants INFRAS/IWW, which forms the basis of most of the Australian and international research into the issue. The values used in the model are derived from both AusLink and the European research in order to differentiate between urban and non-urban values. The values are summarised below:

(\$/000ntk)	Rail		Road	
	Urban	Rural	Urban	Rural
Pollution	3.3	0	9.7	0.1
Greenhouse	0.3	0.3	0.7	0.7
Noise	1.4	0	2.6	0.26
Urban Severance	0.8	0	2.2	0
Congestion	0	0	0.9	0
Landscape and Nature	0.8	0.24	2.6	1.1
Crashes	0.3	0.3	3.2	3.2
TOTAL	6.9	0.84	21.9	5.36

The model allocates the urban and rural values according to an explicit route corridor assessment. It can be seen that the ratio of road to rail costs in the rural environment is around 6.4:1.

This is less than the ratio of around 10:1 evidenced in the values calculated by Queensland Transport, as used in the NSW Grain Industry Advisory Council (GIAC) Report into grain branch lines. A truly accurate analysis would need to be based on measurements taken along the key road and rail routes under deliberation here, and would include consideration of locomotives and truck types (and ages) as well as

congestion and road safety measures on key routes under specific freight task parameters.

In the absence of this analysis, the AusLink values are probably the most appropriate due to their status and currency. It should be noted, however, that there are some congestion impacts unique to this industry that bear qualitative consideration, notably:

- the impact on communities at Portland, Geelong and Melbourne of large quantities of grain freight transferring from a rail-based transport system to roads during a short time frame between November and January. This would create substantial traffic congestion at all ports. The grain ports at Portland and Geelong, in particular, were built to receive grain by rail, and consequently road routes leading in from the grain growing areas are less well developed. Heavy truck use of these routes would have severe impacts on these routes, affecting residential amenity quite considerably
- loss of grain export traffic by rail would adversely affect the State Government's 30% port-related rail freight policy target
- truck congestion at the port terminals would create operational costs and difficulties, i.e. regarding queuing on access roads, as well as additional staff costs. The reduction in daily receival capacity at port (without trains) would also have an impact on the ability of the exporters to assemble cargoes rapidly, minimise shipping demurrage and maximise the ability to capture export price premiums and shipping cost savings

These issues would need to be confronted on a case by case basis by the industry and the Government in the event of downturn in the use of rail.

3.7.5 Conclusion

The overall analysis shows that rail operating margins (and hence operator viability and likelihood of maintaining rolling stock and its business in Victoria) are positive in years where there is an average or better export task and a small number of trains committed. These positive margins, however, depend on rehabilitation of the track to recover service levels and significant reductions in access charges from the current level applying to grain freight, which are the subject of recommendations in this report.

In short, any decision regarding the retention and upgrade of the grain network must be made in recognition of the risks should there not be an adequate provision of rolling stock and services.

3.8 Holistic approach

3.8.1 Current situation

- the operating environment does not immediately support a substantial investment in rail upgrades

- PN will take, at best, an opportunistic approach to the Victorian rail task, and is highly unlikely to invest in rolling stock
- PN will continue to operate domestic services in NSW, and possibly Victoria, but will essentially exit the export task – timing of this is probably subject to the emergence of a 2009 export task
- El Zorro has a one year contract with AWB GrainFlow but little certainty and considerable operational and commercial challenges
- wagons are relatively plentiful and would be made available for lease by PN. PN will also provide small numbers of fully resourced trains if grain industry customers absorb the seasonal risk. Locomotives, however, are in short supply and train crew numbers in remote locations are likely to dwindle
- access charges increased in June 2007, pushing rail freight rates closer to road

3.8.2 Industry Analysis

- the future of rail services to the Victorian grain industry on the current network is at a critical point. Minimal train operating capacity will be on hand by the start of the 2009 season
- track condition is worsening to the point of virtual closure, as trains travelling on lines with 20km/h speeds cannot be efficiently resourced with crews
- the main industry organisations have not shown the ability to combine for a pro-rail logistics position
- forecast volumes are reduced due to the drought and it is questionable as to whether grain operators will assume the risk associated with locking in substantial rail resources
- PN's long-term commitment to grain freight is uncertain

3.8.3 Integrated solution - a template for the future

- a significant reinvestment program to rehabilitate the network is warranted if there is a reasonable matching guarantee of train capacity and grain industry support for services
- a commitment to upgrade the grain network would need to be matched by the availability of staff, locomotives and wagons
- the grain operators would also need to improve the rail loading and unloading facilities at key sites and ports
- any such funding commitment would only be made if the grain industry (bulk handlers and marketers) could develop a structure under which they could co-operate to maximise rail usage
- bulk handlers would also be required undertake to operate port terminals at night so that 24 hour cycles were available for a large percentage of the task
- Government would set access prices for the V/Line network at nominal values
- PN would need to provide access for other rail operators to obtain locomotives and wagons for grain transport

3.8.4 Network configurations and transfer sites

- each of the branch lines is lightly trafficked and requires capital and maintenance funding in excess of what can be reasonably generated through access charges. The smaller the network, and the more concentrated the tonnage, the better will be the overall economic cost
- contrary to this is the proposition that the rail network needs a certain scale in order to continue to be relevant to the industry - reducing it by too much runs the risk of orienting the industry towards road transport as a comprehensive solution
- the selection of an appropriate network, between the two extremes is critical, and involves consideration of practical, economic, geographic and environmental factors
- rehabilitating any line should be based on the following factors as a minimum:
 - location of nearby suitable road/rail transfer points in order to keep maximum tonnes on the rail system
 - provision of a small number of high quality loading points for large volumes
 - provision of efficient unloading points at port terminals, where possible
- the most critical factor is the match between network extent and the long term capacity of the rail operators to provide services on the network
- the decision as to the extent of the grain network also needs to take into account the future of mineral sands transport options and other freight opportunities referred to in the report. Mineral sands freight demand will be more reliable than grain demand and if substantial, will provide the base justification for future substantial track investments on the Portland, Hopetoun and Robinvale lines

3.8.5 Benefits of an integrated approach

- a solution of this nature is more holistic and maximises the value of public spending. Upgraded track that is unused is wasted; locomotives can be sold or transferred to other traffics very readily if no longer required for grain transport
- the impact on the road network will also be greatly reduced, and traffic will be concentrated towards highway routes already designed for significant truck traffic
- this proposed network and rehabilitation of the track ensures that the State gets more value for its investments in the passenger lines, concentrating some grain traffic onto the Mildura and Swan Hill lines. This could be valuable if intermodal services come under threat from climate change and/or operator disinterest
- State funding contributions to the industry take the form of reduced access prices, and targeted rail upgrades

3.8.6 Necessary industry commitment

An holistic investment package would be conditional on grain industry cohesion and commitment in a far more formal and comprehensive way than has occurred in Victoria since the deregulatory moves began over a decade ago. There would need to be firm and formal agreements with grain bulk handlers regarding the dedication of most

export traffic to rail. There would also need to be formal agreements between the industry, the State Government and the designated rail operator(s).

The model developed would support discussions between the Government and Industry regarding network configuration.

3.8.7 Western Australian approach

In this regard it should be noted that a similar level of industry cohesion is currently being negotiated between government, rail operator and grain industry to save the rail services in Western Australia. After a decade of acrimonious and competitive behaviour between the parties in the rail freight agreements, this is now on the point of being resolved in a manner expressly designed to support the rail operator and the network, even to the detriment of grain traders in regard to the cost of transport.

The resolution reportedly involves:

1. Co-ordination of all export transport cargo assembly by CBH (the GrainCorp equivalent) on behalf of all exporters
2. A substantial increase in rail freight rates
3. Invocation of powers by the Minister for Transport to control the use of road transport for the transport of export grain from rail-served sites by rail via a licensing scheme. Any such road haul to port must now be approved by the rail company and the Minister in advance
4. This scheme is scheduled to commence in WA from 1 January 2008. It is a very strong indication of the level of cohesion between the grain industry, rail operators and government agencies that is necessary to protect the role of rail in servicing the industry into the future

The scheme will help maximise the volume available to the rail company, and reduce the ability of marketers to use 'spot' road prices to undermine the viability of the rail system. The scheme also addresses the problem of passive approvals from roads authorities to the heavy use of the road system for non-approved vehicles without any frame of reference for decision-making. The Government's willingness to invoke a power, even if lightly used in practice, sends a clear signal to industry and the community that the rail system has the future for grain transport, and this in turn ensures that the grain industry will invest in rail-related assets and improvements.

3.8.8 NSW approach

In NSW, the Government is also currently negotiating a resolution of similar issues regarding the future of PN rail services to the industry. This resolution involves an approval for PN to spend a large amount of capital, previously ring-fenced under the privatisation deeds for expenditure on grain handling infrastructure, on upgrading of the grain locomotive fleet. This is in explicit recognition that the condition and availability of the fleet was the greatest impediment to future services.

3.8.9 Suggested Victorian approach

Industry commitments and collaboration are a prerequisite for line upgrades. An integrated investment approach combining the following factors will provide the industry with the greatest possible level of certainty over the long term and provide rail transport capability at a defensible cost to the community:

- prioritisation of lines for upgrade
- concentration of volume into efficient sites
- facilitation of locomotive fleet regeneration for a substantial train fleet
- targeted funding of specific local roads
- improvements to key loading and unloading facilities

A strong signal of intent by the Victorian Government, and similar level of formal commitment by all organisations in the Victorian grain industry would be a prerequisite for funding rehabilitation of the network.

Recommendation 7: Establish a Grain Logistics Taskforce to coordinate the grain supply chain and collaboration on grain handling with a structure based on the Hunter Valley Coal Chain Logistic Team model (HVCCLT) established in 2005.

Recommendation 8: Pacific National is approached to provide reasonable access to locomotives and wagons for rail operators engaged in servicing the grain industry, given the Government’s investment in track improvements and reduced access charges. PN to make available the minimum number of train sets (estimated at seven) required to service an average grain harvest.

3.9 Rehabilitation of the Network

The fundamental role of the rail freight network system is to provide a sustainable network of lines to give rail freight its best chance of success. Grain is the dominant task and influence on the shape of the network, as almost all the key intermodal operations are supported by passenger or ARTC lines, which are assumed to remain. An holistic approach is recommended so that grain handling, rail operator viability and harvest variability can be addressed in a future rail freight system that also considers sustainability and triple bottom line issues.

The train operations analysis suggests focusing upgrading works on the core network with efficient train loading to minimise the capital expenditure on track and to create better train efficiency will provide the best opportunity for rail to carry grain. Maximising train efficiency will have a greater influence on rail mode share of export grain than a more extensive rail network. This is the trade-off for some growers who may lose rail access to their closest silo – growers are already transferring to more distant, but more efficient sites introduced in recent years even with rail access available at their nearest silo.

The potential to carry significant tonnages of mineral sands on the Hopetoun and Robinvale lines suggests that these grain lines ought to be included in upgrade programs to capture mineral sands tonnages by rail.

V/Line resources will limit the amount of upgrading which can be undertaken, so there is a need to establish a prioritised program to restore lines to their underlying Class 4 (65 km/h) or Class 5 (50 km/h) standard.

Platinum (the base network) - track that will continue to be maintained by virtue of being part of the V/Line passenger network, the ARTC interstate network or the declared AusLink network (which includes the Mildura line). No additional rehabilitation funds are required for these sections of line, and the Mildura line will only require ongoing maintenance and sleeper renewal every five years, given the \$73 million already committed by the Federal and State Governments to its rehabilitation. However upgrades on these lines, such as longer or new passing loops or upgrades to signalling, axle loads or speeds could be considered in the future when substantiated by new or increased freight tasks.

<i>ARTC - Melbourne to Serviceton via Maroona and Melbourne to Albury</i>	<i>V/Line Passenger - Albury, Bairnsdale, Ballarat-Ararat, Bendigo-Echuca, Bendigo-Swan Hill, Shepparton, Warrnambool</i>
<i>AusLink - Gheringhap-Mildura</i>	

Gold – first priority for rehabilitation to original track classification (Class 4 or 5) outside the Platinum given base network, forming a core grain network which maximises use of the Platinum network and is the minimum network which can support a sustainable above rail freight operation.

<i>Swan Hill - Piangil</i>	<i>Korong Vale - Quambatook</i>
<i>Mildura-Yelta</i>	<i>Korong Vale - Charlton</i>
<i>Dunolly - Korong Vale</i>	<i>Murtoa - Warracknabeal</i>
<i>Echuca - Barnes</i>	<i>Maroona - Portland (subject to ARTC discussions)</i>
<i>Shepparton - Tocumwal</i>	

Silver – high priority lines to be rehabilitated to original track classification (Class 4 or 5), conditional on grain industry collaboration and commitment to improve overall supply chain efficiency to support rail. This should be done by establishment of a sustainable fleet of rolling stock; further centralisation and upgrading of silos and port facilities with longer sidings, fast train loading, fast truck turnaround and extended operating hours.

<i>Warracknabeal - Hopetoun</i>	<i>Barnes - Deniliquin</i>
<i>Charlton to Sea Lake</i>	<i>Echuca - Toolamba</i>

<i>Quambatook – Manangatang (and then to Robinvale conditional on mineral sands)</i>	<i>Benalla – Oaklands</i>
<i>Ouyen – Pinnaroo</i>	<i>Maryborough – Moolort</i>

Bronze – minimum maintenance line sections not designated a priority for rehabilitation at this stage. These reservations should be maintained clear of vegetation to maximise the opportunity for future restoration should the case be made to do so in the future. These lines could be upgraded to Silver should the grain industry collaboration and supply chain efficiency initiative establish the case for its restoration to its original track class or new traffic emerges.

<i>Dimboola – Yaapeet</i>	<i>Inglewood – Eaglehawk (Bendigo)</i>
<i>Manangatang – Robinvale (if not upgraded as part of mineral sands)</i>	<i>Shepparton – Dookie</i>
<i>Maryborough – Ararat (if not upgraded to support mineral sands rail task from Robinvale)</i>	<i>Sea Lake – Kulwin</i>
<i>Moolort – Maldon Junction (Castlemaine)</i>	<i>Barnes – Moulamein</i>

In reaching this set of priorities, RFNR does not exclude greenfield freight projects requiring new lines (e.g. Litchfield to Minyip linking the Mildura and Hopetoun lines for mineral sands) or reopening and upgrading of old lines (e.g. Cranbourne to Barry Beach for oil) or Cranbourne to Hastings (containers to/from the Port of Hastings)

RFNR recommends the proposed upgrade priority category as shown in **Figure 2.6** and the proposed works program as detailed in Table 2.3. Several lines such as Echuca – Deniliquin and Dunolly – Korong Vale have recently been restored and so are not included in this immediate upgrade program.

Figure 2.6 – Grain network priority map

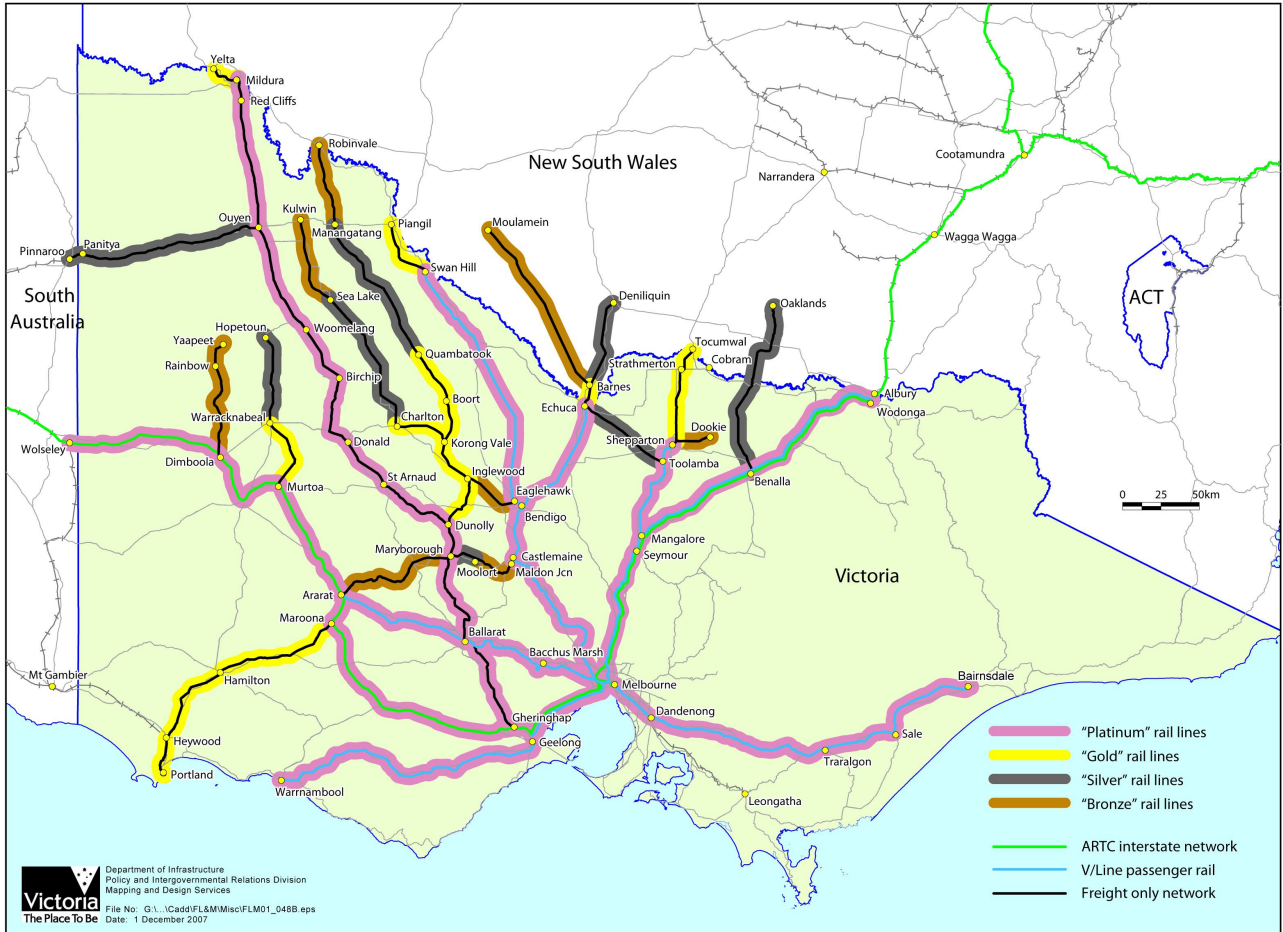


Table 2.3 Recommended Rehabilitation Program

Recommended rehabilitation programme for freight-only lines in suggested priority sequence					
Line section	Km	Estimated cost (2008/09 prices)			Total \$m
		2008/09 \$m	2009/10 \$m	2010/11 \$m	
<u>Gold Lines</u>					
Korong Vale-Quambatook	64	4.6			4.6
Korong Vale-Charlton	36	2.7			2.7
Shepparton-Tocumwal	69	7.8			7.8
Mildura-Yelta	20	1.6			1.6
Swan Hill-Piangil	44	3.4			3.4
Murtoa-Warracknabeal	51	3.6			3.6
Maroona-Portland	171			12.7	12.7
Sub-total Gold lines****	455	23.7	0.0	12.7	36.4
<u>Silver Lines</u>					
Warracknabeal-Hopetoun***	59	4.3			4.3
Quambatook-Manangatang**	111	2.0	5.8		7.8
Charlton-Sea Lake	104		7.8		7.8
Echuca-Toolamba	67		39.0		3.9
Benalla-Oaklands*	126		13.2		13.2
Ouyen-Pinnaroo	135			10.1	10.1
Sub-total Silver lines	602	6.3	30.7	10.1	47.1
Total both groups	1057	30.0	30.7	22.8	83.5

* timing influenced by standardisation of Seymour to Albury line

** subject to grain collaboration and efficiency and or mineral sands from Euston mines being transported on Robinvale line

*** subject to grain collaboration and efficiency improvements and or mineral sands from Ouyen mines

****Gold lines Korong Vale – Dunolly and Echuca – Barnes have already been upgraded

The full Gold rehabilitation program requires capital investment of \$36.4 million (excluding maintenance). Investment in rehabilitating the Silver network at a capital cost of \$47.1 million is conditional on collaboration and prior commitment by grain industry participants on the relevant line sections not only to improve efficiency and control of the supply chain, but to ensure there is a viable number of locomotives and grain wagons available to support the grain task relevant to that network configuration.

There is also an ongoing requirement for routine maintenance of the gold and silver lines during the rehabilitation period of \$18.4 million per annum (inclusive of maintenance on the Mildura line). Minimal maintenance of the bronze lines will require an additional \$2 million over this three year period.

The total investment in the freight only network including maintenance is \$140.7 million over three years.

Beyond the three year rehabilitation program the network will require ongoing routine maintenance together with major periodic maintenance (re-sleepering) every five years. This is estimated in 2008 dollars to be in the order of \$25 million per annum.

The Silver priority rehabilitation investments would be subject to immediate grain industry collaboration to establish an ongoing viable and available fleet of rolling stock to service the grain industry and these line sections efficiently. The upgrading of the Quambatook to Robinvale line section will also be subject to Iluka agreement to transport mineral sands by rail from the Euston mines. These sands could also be transported on other lines such as a standardised Mildura line, or possibly even the Piangil-Swan Hill line, if the permanence of its broad gauge status can be overcome via gauge transshipment at Maryborough or Dunolly.

RFNR also conditions the Silver investments on the grain industry further rationalising and upgrading of silos consistent with the above investment in lines and to enable 24 or 36 hour train cycle times from each site via increased capacity and train loading speeds, increased siding lengths and extended operating hours.

RFNR urges the establishment of a containerised grain hubbing strategy given the growth in this method of transport with the establishment of new rail based hubs and upgrade facilities at existing hubs. RFNR also recommends the encouragement of feedlot receivals and container packers to be located convenient to rail by conditional planning approval on new facilities based on being rail-advantaged.

RFNR also recommends that lines not prioritised for upgrade at this stage be retained at minimum maintenance to control weeds and enable appropriate fire protection.

GrainCorp has indicated that the Kulwin to Sea Lake line could be truncated at Sea Lake. Halfway along this section and underneath it is a major deposit of mineral sands that Iluka wants to mine. This would involve removing a section of the railway line, mining the mineral sands seam and restoring the railway line at Iluka's cost. RFNR supports Iluka's request to gain access to the mineral sands deposit underneath the Kulwin line which is consistent with its bronze designation.

RFNR believes that in the event that grain industry collaboration fails to produce the desired results, there are various options for government intervention available to designate grain to rail that could be contemplated. There are similar examples of successful government intervention in Australia and Canada to facilitate desirable rail freight outcomes. RFNR notes the Canadian model where lines which are the equivalent of bronze lines that are threatened with closure or facing disuse, are offered to local communities or groups in consultation, whereby there is a subsidy for the creation of a business plan and if the applying group meets three criteria, a viable business plan for the first ten years, local investment of 8% and demonstrable local support, then the line is leased or given to the local group.⁸ In the 1970s and 1980s, the Canadian Government bought a fleet of 12,000 grain wagons for lease to shortline rail operators. Consequently, the freight rate does not include the fixed cost of wagon ownership. RFNR supports this model as part of a flexible approach to grain logistics where appropriate criteria are met.

"In the short term there is a good case for rehabilitation of branch lines. The alternative is to see more and more freight move by B-doubles on lightly constructed roads."

- Professor Philip Laird, Railway Technical Society of Australia, to Federal Government inquiry, The Great Freight Task, July 2007, p126

RFNR recommends that the Government work with the grain industry to facilitate the establishment of a single Victorian or south eastern Australian grain body to coordinate and control the grain supply chain as is currently occurring in Western Australia and on a limited basis on the Eyre Peninsula in South Australia. It has also worked very effectively in the Canadian grain industry and the Newcastle coal supply chain. This could be achieved via an increase in rail freight rates to improve operator viability but with a parallel improvement in services and rail infrastructure. The issue of rail freight pricing is important - there may be some agreement whereby the full cost of the road-rail transfer does not have to be borne by the directly affected growers - but could be spread across all export tonnage ex-silo and could be part of the grain industry/rail operator/government agreement envisaged here.

Recommendation 3 - RFNR strongly recommends that priorities and levels of investment are established in the Victorian Rail Freight Network, by implementing a new set of categories: Platinum, Gold, Silver and Bronze:

- a) Platinum (the base network) – track that will continue to be maintained by virtue of being part of the V/Line passenger network, the ARTC interstate network or the declared AusLink network (which includes the Mildura line).**
- b) Gold – first priority for rehabilitation and restoration to original track classification (generally Class 4 or 5) outside the Platinum base network.**

⁸ *The Great Freight Task*, House of Representatives Standing Committee on Transport and Regional Services, 2007; pp123 - 127

This forms a core grain network which maximises use of the base network and is the minimum network which can support a sustainable above rail freight operation.

- c) Silver – high priority lines to be rehabilitated to original track classification (Class 4 or 5), conditional on grain industry collaboration and commitment to improve overall supply chain efficiency to support rail.**
- d). Bronze – minimum maintenance line sections. These lines could be upgraded to Silver should the grain industry collaboration and supply chain efficiency initiative establish the case for funding.**

Recommendation 4 - Rehabilitate the full Gold core grain network at a capital cost of \$36.4 million. Rehabilitate the Silver network (approximately \$47.1 million) conditional on collaboration and prior commitment by grain industry participants on the relevant line section not only to improve efficiency and control of the supply chain, but to ensure there is a viable number of locomotives and grain wagons to support the grain task relevant to that network configuration. Retain the Bronze network with minimum maintenance which could be upgraded to Silver if warranted due to freight volumes and investment.

Recommendation 5: In the case of Bronze lines where application is made, the Government consider the option of offering sections of these lines to local communities or groups similar to the Canadian model.

Recommendation 6 - The Government considers legislating to enable elements of the grain freight task to be regulated to rail in the event of no collaboration and commitment being forthcoming from the grain industry as the network would otherwise revert to Platinum and Gold only.

Recommendation 12 - Establish an ongoing asset management regime to maintain network at designated speeds post capital rehabilitation, including routine and major periodic maintenance on track and bridges. Continue an ongoing audit framework to monitor track condition.

4 OTHER ISSUES

4.1 Triple Bottom Line Outcomes

In accordance with 21st century thinking, the State Government has an objective of triple bottom line outcomes. The intention of this objective is that economic, social and environmental effects be considered in Government decisions. Such an approach would consider rail as a cost-effective alternative to highways, reducing road construction and maintenance costs, road accidents and fuel use and greenhouse gas emissions.

These benefits flow through to the entire community, not just rail customers. Applying comparable investment criteria to rail and road projects would minimise transport and infrastructure costs so that the optimum transport outcome is achieved economically, socially and environmentally. This includes evaluation of externalities such as greenhouse gas emissions, road accidents, road damage, and waterway contamination from road runoff and habitat effect on native animals.

According to Austroads *Road Facts 2000* and *Australian Transport Facts 1998*, trucks produce 98% of carbon monoxide emissions from land based freight transport, and 92% of hydrocarbon emissions. This compares with only 2% of carbon monoxide emissions and just 8% of hydrocarbon emissions from rail freight.

The 1998 ARRB Transport Research report *Toward a methodology for comparative resource consumption: modal implications for the freight task* found that rail produced up to 90% fewer emissions per tonne of freight carried than road of pollutants such as carbon monoxide, hydrocarbons, nitrogen oxides and sulphur dioxide.

Rail is an integral part of the distribution process for a wide range of regional produce and bulk export commodities keeping thousands of truck trips off the State's roads each year. By increasing use of rail, the impact of transport on our roads and environment can be reduced. Increased use of rail freight services to absorb the growth in domestic freight in the next 20 years and beyond will reduce Australia's transport energy consumption, reducing transport fuel use and greenhouse gas emissions.

Australia's peak motoring body, the Australian Automobile Association, in its submission to the 1997 Australian Federal Rail Inquiry, stated:

An integrated approach to transport is important because investments in one mode will affect the freight mode choice. Road investment leads to a substitution away from other forms of transport in favour of road transport and largely at the expense of rail transport

Rail provides value-added services to rural communities. Evidence provided to RFNR was that Victoria's rural communities need an efficient, low-cost rail system to provide timely delivery of produce and to improve export competitiveness.

Farmers across Victoria have clearly submitted to RFNR that rail infrastructure be developed and maintained as a safe, efficient alternative to road transport. The message is quite clear that investment in rail freight is an investment in road safety by reducing the number of trucks.

"Unless all costs and factors are fully considered, the closure of rural branchlines can only be a step backwards in the current necessary search for sustainable transport options"

- Professor Philip Laird, Railway Technical Society of Australia, to Federal Government inquiry, The Great Freight Task, July 2007, p127

Investment in Victoria's rail freight system will ensure it can have an even greater role in the transport chain from farm gate to plate. Expenditure on rail is an investment not a subsidy. Better rail equals better and safer roads.

Recommendation 27: An examination is made of the externalities of each major transport project in Victoria particularly relating to rail and road comparisons.

Recommendation 28: Ensure that as part of the evolving national carbon trading scheme, a rail freight carbon/externality scheme be established to capture externality benefits of rail freight compared with road freight.

4.2 Standardisation

The Committee considers that the Victorian Rail Freight Network should remain in its current two gauge configuration on the basis that immediate gauge standardisation will not bring sufficient benefits to offset the cost of standardisation. RFNR notes that standardisation of the freight only lines would facilitate the movement of grain wagons between States, but does not consider that standardisation would resolve the issues arising from the volatility of the grain task.

However the committee recommends the continued upgrading of the Mildura and north-west branch lines compatible with future standardisation (i.e. in timber sleepers) to potentially capture mineral sands and other traffics.

Over time Iluka's mines in the north of the State are likely to become the source of raw materials for its Mineral Separation Plant (MSP) in Hamilton, initially from mines in the Ouyen area and subsequently from north-east of Mildura around Benanee and Koorakee. This freight task is contestable by rail given the distances involved and the estimated consistent, non-seasonal demand of 400,000 to 500,000 tonnes per annum from 2009 to 2021. There is also potential to backhaul by rail the tailings by-product to the mine from the MSP, which is around 250,000 tonnes per annum.

Initial investigations by Iluka indicate that while a road solution is economic, rail could be viable. However, railing the mineral sands from the north-west to the MSP would involve a gauge transfer which may affect the viability of transshipment depending on

the tonnage involved. On commitment by Iluka of sufficient tonnages of mineral sands to their major separation plant at Hamilton standardisation of the north-west lines should be undertaken as required.

It is estimated that gauge standardisation of the north-west lines would reduce rail transport costs for this task by around 40% (saving two train sets and transshipment costs) and would save the cost of a new container transshipment facility at Maryborough or Dunolly.

Depending upon the source of the mineral sands, this could involve standardisation of the Mildura line and the two parallel grain lines to the east. Alternatively, a new rail line between Minyip and Litchfield or Hopetoun and Lascelles could provide a more economic overall result.

In the case of upgrading and reopening the Maryborough to Ararat line on the basis of the mineral sands traffic, the upgrade should include the completion of the standard gauge 'triangle' at Ararat to facilitate direct train movements between Maroona and Maryborough without the need for costly shunting in Ararat yard. The land for this has already been purchased.

In respect of the Benalla - Oaklands branch line, this is currently broad gauge and operates across normally highly productive wheat producing regions of VIC and Northern NSW. At the northern terminus, commonly known as Oaklands, there is an AWB Super site with load out loop (already built in dual gauge) and is at the highest standard of any grain facility on the Victorian network.

Increased capacity on the interstate corridor between Seymour and Albury can be achieved at reasonable cost by converting the existing broad gauge line to standard gauge. The unintended consequence would be to isolate the relatively high tonnage Benalla to Oaklands line. Therefore RFNR has decided to place this branch line in the silver category, relevant to its current broad gauge operation. In the event of standardisation of the north east corridor it is essential that a priority be given to converting the Benalla Oaklands branch line to standard gauge as part of the overall governmental project package for the North East Corridor. Refer to Recommendations 13 and 17 below.

4.3 Port Issues

4.3.1 Melbourne

RFNR endorses rail capacity improvements and the continued and urgent removal of existing track bottlenecks at the Port of Melbourne, including the Dynon Port Rail Link and upgrading rail access to Swanson dock. RFNR notes that the landside infrastructure at the Port of Melbourne will come under even more pressure with the Port Phillip Bay Channel Deepening project and ongoing growth. Efficient landside transport infrastructure serving the port is a major component of improving its capacity. Rail capacity projects in the port region should be prioritised to capture the growing container trade on rail.

Two key rail projects to improve rail access into the Port of Melbourne are 'W' track and the 'Missing Link'. 'W' Track will provide dual gauge access between the Dynon/North Dynon rail terminals and the port precinct to facilitate container transfers by rail between the terminals and the port. It will also enable container shuttle trains from Melbourne's south-east and Gippsland to have direct access to the port rather than having to go to Tottenham rail yards to shunt.

The 'Missing Link' will be a dual gauge line duplicating the existing dual gauge line into the port between Dock Link Road and Footscray Road. This will increase rail capacity into the port, significantly improving the ability to transport containers to and from the port by rail. Both these projects are critical to the Government achieving its 30% rail mode share to port target (presently 16%).

RFNR notes the Webb Dock Rail Link project. Its priority for completion needs to be considered carefully in the context of other more potentially important freight transport priorities at the Port of Hastings and the regional Victorian port network.

RFNR notes the "East West Link Needs Study" currently underway, led by Sir Rod Eddington. RFNR strongly supports the need for the inclusion of visionary rail infrastructure (to support efficient rail freight movement to and from the ports of Melbourne and Hastings) into the final recommended solution of the Eddington report.

4.3.2 Hastings

Rail access to the Port of Hastings is presently via the broad gauge Frankston line. This will be inadequate to cope with future rail demand as the port is developed. Accordingly, RFNR recommends that a rail corridor from the Cranbourne line to the Port of Hastings be reserved. In the first instance this should be at least for broad gauge. In the future, standard gauge access can be provided for regional exports and container imports when volumes dictate. RFNR also recommends that the Minister stipulates that 90% of freight via Hastings be carried by rail; applications for truck access will be by exemption only.

4.3.3 Portland

RFNR supports the development of a business case for a new common user rail receipt facility (grain, woodchips, and mineral sands) including long loop and turnaround and conveyors into wharves, to maximise freight trains efficiency in gaining access to the port. This will be efficient and will offset the significant growth in truck traffic (more than 27,000 trucks per annum to and from the port), principally from the massive increase in woodchip harvesting in the Green Triangle.

RFNR supports an intensive effort to establish a business case to support the reopening and standardisation of the Heywood to Penola railway line to capture up to 2 million tonnes of woodchips per annum. This will require major collaboration between parties in the supply chain and may require government stipulation to underpin the business case.

4.3.4 Geelong

RFNR recommends that all standard gauge rail access improvements be progressed and completed at the Port of Geelong, seeking Federal Government funding from the AusLink program. Priority projects include the removal of the Gheringhap shunt and duplication of Gheringhap to North Geelong from south of Moorabool River Bridge.

Recommendation 13 - Standardisation of the whole Victorian Rail Freight Network cannot be justified at this time. However, opportunities should be taken in the future to standardise where new and increased traffic tasks eventuate and where there is the need to eliminate break of gauge ramifications. All rail networks to major ports should include standard gauge capability.

Recommendation 14 - Provide for broad and standard gauge rail access on a new direct alignment, as part of the Port of Hastings upgrade.

Recommendation 15 - Continue the upgrading of the Mildura and north-west branch lines compatible with future gauge standardisation to potentially capture mineral sands and other traffics.

Recommendation 16 - On commitment by Iluka Resources of sufficient tonnages of mineral sands from the Euston mines to their major separation plant at Hamilton or on the emergence of other significant freight tasks:

- a) rail be designated as the preferred mode of transport for carriage of mineral sands to the separation plant
- b) standardise the north-west lines as required to accommodate the traffic

Recommendation 17 - In respect of the long standing negotiations between ARTC and DOI, RFNR urges their early completion with a view to increasing capacity on the Melbourne-Sydney rail corridor, by leasing the broad gauge track from Seymour to Albury to ARTC and converting it to standard gauge. Concurrent with this, a decision must be made to standardise the otherwise isolated branch line from Benalla to Oaklands.

Recommendation 18 - Complete standard gauge rail access improvements at Geelong through the ARTC:

- a) remove Gheringhap shunt
- b) duplicate Gheringhap to North Geelong from south of Moorabool River Bridge.

Recommendation 19 - RFNR supports continued operation of the Maroona/Portland line to the deep water port of Portland, RFNR currently designates this as a Gold line and further urges Government facilitation of a new multi-user rail receipt terminal at Portland.

Recommendation 20: Enhance rail access to the Port of Melbourne by completing the following projects:

- a) the Dynon Port Rail link
- b) provide additional access into port, through the provision of additional track sections known as 'W track' and 'Missing link'
- c) continue to upgrade the rail-port interface within East and West Swanson docks.

4.4 Hubbing

The whole trend of rail freight movement in Australia and worldwide throughout the last 30 years has been towards hubbing. Hubbing involves consolidation of freight (bulk and containerised) at central locations adjacent to rail lines and transport of freight by rail to and from ports.

Initially this resulted in the closure of small railway stations and freight yards. However, it has now moved to major hubbing where intermodal depots efficiently handle large unit freight trains. An example is operations on the 3,000 kilometre Adelaide–Darwin railway where freight trains stop at just four intermediate places: Port Augusta, Tennant Creek, Katherine and Alice Springs. Another example is the terminals at the twin ports

of Longbeach and Los Angeles which landbridge containers from west to east coast USA.

RFNR strongly endorses the continued movement towards the concept of hubbing particularly in containerised traffic to give rail its best chance of being viable. RFNR recommends the facilitation, designation and support of regional hubs and notes the existing support for five major hubs via the Regional Infrastructure Development Fund administered by Regional Development Victoria and AusLink funding applications for the Wodonga Logic Hub, Goulburn Valley Freight Centre in Mooropna, Wimmera Intermodal Terminal at Doon near Horsham and a Geelong area terminal.

The Committee recognises the strategic benefits for rail of such hubs and recommends that these and others which are currently being scoped (e.g. Goldfields Export Cluster at Maryborough, Morwell's Gippsland Intermodal Freight Terminal (GIFT), Mangalore Food and Logistics Precinct and Marong Business Park near Bendigo) be supported where sufficient industry, volume and operator interest arises – we note rail is available at most locations and provisions should be made for rail in the planning. RFNR recommends that in the specific case of Morwell GIFT, consideration be given to transferring the lease of the existing terminal to Council to enable it to expand the hub into its land earmarked for industrial development.

Other opportunities for hubbing are emerging from the development of new industrial and/or logistic parks to address the increasing shortfall of industrial land in regional cities and towns. The centres with good early promise, well-developed business cases and AusLink 2 funding applications include Wodonga Logic, Wimmera Intermodal Terminal at Doon near Horsham, Goulburn Valley Freight Centre in Mooropna and in the Geelong region.

There remain a number of impediments to successful implementation of the Hubbing concept including resolution of investment security issues and Australian Taxation Office treatment of depreciation rules associated with private sector investment on public land through amending Section 51AD and Division 16D of the Tax Act. Without reform, these provisions discourage private sector investment in the rail industry. The Gippsland Intermodal Freight Terminal issue is a salient reminder of what can go wrong and is still fresh in the minds of several of the affected participants including former clients. The future development of intermodal terminals lends itself to Public Private Partnership arrangements which need to take into account the unique requirements relative to the freight sector.

RFNR endorses the concept of outer Melbourne hubs (i.e. Altona-Laverton, Somerton area, Dandenong south) located adjacent to rail lines to facilitate movement of freight by rail. RFNR notes and supports the ongoing extensive work in DOI to garner support for rail shuttles and make them work so that the Port of Melbourne (and potentially Hastings) can be served by container rail shuttles.

These hubs can be used for domestic interstate rail freight and potentially as alternative and preferable locations for hubbing activities which are occurring at the Port of

Melbourne and do not need to. They could also be used for quick shuttling into the port of regional export containers or shuttling imports from the port to regional distribution centres.

Short haul rail shuttles from outer metropolitan intermodal terminals are operating successfully in Sydney due to substantial volumes; longer distances and they are more efficient than trucks. The impact on Melbourne's metropolitan area of trucks servicing the Port of Melbourne, the largest container port in Australia, is ever growing. However, congestion is less than in Sydney and trucking efficiency remains relatively high, reducing the viability of rail shuttles in Melbourne.

The WA Government has a target of 30% rail market share to/from the Port of Fremantle by 2013 up from 7% now. To achieve this target, the Government has initiated an interim scheme of funding support for the development of rail shuttles between the port and the Kewdale/Forrestfield freight terminals 20 kilometres away. This is a precursor to more permanent measures including infrastructure improvements to improve rail freight market share to/from the port.

RFNR recommends that hubbing be further encouraged to facilitate rail transport of freight by more efficient truck access to rail terminals. This could be achieved by the establishment of freight catchment zones and the issuing of permits for over-dimensional vehicles within 83 kilometres of intermodal hubs.

Recommendation 9: RFNR supports a series of initiatives to accelerate and enhance regional and metropolitan hubbing adjacent to the rail network:

- a) further consolidate the grain storage infrastructure to facilitate larger volume throughput and storage including rapid loading and unloading**
- b) as part of the approach to grain hubbing, steps be taken to reduce train cycle times to the benchmarks of 24 hour and 36 hour cycles**
- c) further encourage the development of regional intermodal hubs such as Dooen (Horsham), Geelong, Goulburn Valley Logistics Centre (GVLC – Shepparton), Wodonga Logic, Mildura/Merbein and Morwell/Maryvale**
- d) facilitate the development of common user outer metropolitan hubs at locations such as Altona, Broadmeadows/Somerton and Dandenong to rapidly move large quantities of containers to and from ports by rail including appropriate corridor reservations**
- e) improve intermodal hubbing further by the provision of a catchment zone in which over dimensional vehicles can operate with exemption to the nearest regional intermodal hub within a maximum distance of an 83 kilometre radius.**

4.5 Institutional arrangements

There are relatively high barriers to new rail freight operators entering the rail freight business or to existing rail freight operators endeavouring to develop their business.

This reflects the high capital cost structure of the industry, together with the high costs of safety and risk management.

4.5.1 Multiple access regimes and restricted train paths for rail freight operators

A significant issue facing rail freight operators is negotiating with different track providers for access agreements, train paths and train priority. For example, any regional broad gauge freight train going to either the Dynon terminal or the Port of Melbourne requires track access agreements with V/Line, Connex and the ARTC and is subject to their respective train control protocols. Metropolitan train paths, in particular, are becoming increasingly difficult to obtain due to expanding suburban train frequencies. Consequently, obtaining an appropriate train path can be difficult especially for new rail operators. It was submitted to RFNR that a 'one stop shop' to coordinate track access be established to simplify the process for track access seekers including access to sidings attached to the ARTC network that are not on the ARTC lease.

There is also the issue that V/Line, as track manager of the regional rail network and operator of regional passenger trains over the network, has a potential conflict of interest managing passenger and freight train paths. RFNR received anecdotal advice of one instance where a freight train path could not be obtained because V/Line required the same path to shunt an empty passenger train.

Similarly, the Regional Fast Rail (RFR) project has significantly benefited regional rail passengers, but at the detriment of regional freight trains. Additional and faster passenger trains have reduced track capacity available for freight trains which now must operate almost exclusively at night on most RFR corridors whereas previously there were some daytime train paths available. Track capacity on the Bendigo corridor has been further reduced by the single tracking of the 70 kilometre section between Kyneton and Bendigo. On the Gippsland RFR corridor, it was indicated to RFNR that difficulties in obtaining train paths had contributed to the inability of the region to capitalise on a number of rail freight opportunities.

4.5.2 Regulation

Regulatory compliance is a costly and time consuming process for rail operators and places them at a competitive disadvantage with road. Rail operators must comply with stringent rail safety regulations that are rigorously enforced and that differ between States. Rail operators also must demonstrate that they are controlling and reducing their safety risks 'so far as is reasonably practical'.

"This, in itself, can still be a recipe for consuming inordinately large amounts of resources in reducing accident risk to a level substantially lower than is justified in achieving an economically efficient balance between risk reduction and resource commitment."

- NTC's consultation paper (March 2007) on National Guideline for Rail Safety Accreditation Supplementary Paper on the SFAIRP Principle, p19 citing the case of *Holmes v R E Spence (1992)*

There are also numerous safety authorities that have to be dealt with at State and Federal level because rail safety accreditation requirements differ between different rail networks.

It was submitted to RFNR that Victoria's rail safety legislation under its new Rail Safety Act, while onerous, is something that rail operators have to work with and is less onerous than NSW rail safety legislation. Ideally a national uniform rail regime should be implemented. In contrast, truck operators face a much less costly and less stringent standard of regulation that is generally uniform for different roads.

While recognising the importance and need for a safe rail system, it has been noted that regulatory compliance is costly and time consuming for rail operators.

A further impediment to operating freight trains in the Melbourne metropolitan area is the requirement for niche rail operators to obtain a \$0.5 million performance bond to indemnify Connex from penalties it may incur for any delays to its trains as a result of the niche operator's trains. The requirement for the bond does not apply to large companies like Pacific National. This is a major reason for one small rail operator ceasing broad gauge operations in Victoria.

4.5.3 Driver route knowledge

It was brought to RFNR's attention that there are issues with train driver accreditation for acquiring route knowledge. This is quite a complex issue, but evidence provided to RFNR indicated that it is something that the track manager can resolve.

Track managers require train drivers to be qualified on the route(s) they are going to operate over in order to minimise the risk of safety incidents occurring. This requires supervised test runs and for drivers to drive over a track section every two years in order to remain qualified on it.

However, it can be difficult to find drivers qualified in the route(s) to oversee relevant training due to either driver shortages or a reluctance of competitors to release drivers for training.

One company has advised RFNR that it has developed a policy to overcome these problems and ensure that there are suitably qualified drivers available with route knowledge of various track sections independent of PN and V/Line. The policy has been presented to both the rail safety regulator and V/Line, but has yet to be accepted by either organisation.

4.5.4 Safeworking

There presently exist long track sections on the regional rail network (e.g. Seymour - Shepparton 83 km or Geelong - Warrnambool 193 km) where train paths are restricted

because of inadequate capacity for trains to cross in opposite directions. This affects train scheduling which can increase rail operators' costs from inefficient train cycle times causing poor equipment utilisation. Revised train operating practices could reduce rail operators' costs by providing more flexible scheduling capability.

Similarly, it was brought to RFNR's attention that there are a number of regional signal boxes which require a signaller to be rostered on for a full shift to allow a train to change lines at a junction. This practice requires review to determine whether the train crew can undertake the necessary signalling procedures in order to reduce costs without affecting safe operations.

Recommendation 21: Simplify driver accreditation and rail safety processes to encourage above rail competition (via reduced barriers to new entrants) and improved rail freight market share.

Recommendation 22: Urgently review the process for accreditation, insurance and other compliance issues with a view to simplifying and reducing the cost of the regulatory burden on rail operators.

Recommendation 23: Establish a 'one stop shop' for track access to simplify the process for above rail operators.

Recommendation 24: Give higher priority to capacity for freight trains on the Melbourne metropolitan rail network by improving integration with metropolitan rail system planning.

Recommendation 25: Review detailed train and track operational procedures to remove outmoded practices via better crew flexibility and/or upgraded infrastructure.

4.6 Swaps...An alternative Solution

RFNR gave consideration to some lateral thinking with regard to the extremely challenging rail infrastructure circumstance along the Victoria-South Australia border. It is noted that Penola is 275 kilometres closer to the Port of Portland than it is to the Port of Adelaide. Equally Murrayville on the Ouyen-Pinnaroo line is 248 kilometres closer to the Port of Adelaide than the Port of Geelong.

The interests of both states and industry may be best served by the exchange of the management of those tracks whereby the Ouyen to Panitya track is given to the South Australian Government in exchange for Penola to Rennick section in south-east South Australia going to the Victorian Government. This would create an opportunity for the reopening of the Penola line for the rail transport of woodchips to the Port of Portland.

RFNR recommends that the Premier of Victoria approach the South Australian premier to set up a taskforce to investigate the economic merit of the transfer of the Pinnaroo - Tiego (Ouyen) line to the South Australian Government and the Penola - Mt Gambier-Rennick to Victoria, given the proximity of those lines to ports in the adjoining states.

It is also recommended by RFNR that the Victorian State Government liaise with both BeMax and Iluka, in addition to the NSW State Government and the Federal Government, to maximise rail transport opportunities for the transport of mineral sands noting both companies are conscious of the environmental advantages and inherent efficiencies of using rail in the future for bulk products.

Recommendation 26: Government consider an approach by the Premier to the South Australian premier, to set up an interstate taskforce to investigate the transport interconnectivity between South Australia and Victoria, including the economic feasibility of transferring the Pinnaroo to Tiego (Ouyen) line to the South Australian Government and the Penola–Mt Gambier–Rennick line to the Victorian Government.

4.7 New Rail Freight Opportunities

The RFNR Committee identified a number of rail freight opportunities through its consultations. These regular non-seasonal freight flows would decrease the rail freight system's reliance on seasonal grain, helping to improve its viability and reduce the number of trucks on the road. Of course, the ability of rail to meet new freight tasks ceases to exist if there is no nearby rail network or if rail networks have been removed and the reservation has been revoked. More recently in Australia, the Adelaide-Darwin railway has been a catalyst for two new mining projects in the Northern Territory. The management of both projects have publicly stated that their mines would not be viable without the railway line. This is an example of rail promoting economic development as the new railway provided the impetus for the commencement of those mines.

These new rail freight opportunities include:

- **Mineral sands from the Murray Basin** is perhaps the strongest immediate prospect for rail. Iluka is currently investigating the possibility of rail transport of raw product from its Ouyen and Euston mines to its already established mineral separation plant (MSP) in Hamilton which is adjacent to the railway line. The raw material for the plant is currently trucked from its Douglas mine south of Horsham because there is no rail connection. Finished product is transported 86 kilometres from the MSP to the Port of Portland.

The initial proposed source of mineral sands is from mines in the Ouyen region could be trucked to Hopetoun for transfer to rail to Hamilton. Subsequent production from Euston mines would involve consideration of standardisation of north-west lines as previously discussed.

BeMax has been mining mineral sands since 2005 between Mildura and Broken Hill and has operational processing facilities adjacent to rail at Broken Hill. Present volume is 500,000 tonnes per year which is trucked to Broken Hill and railed to Adelaide for export. In addition, a by-product is transferred by truck to Merbein and railed to Melbourne. BeMax is currently undertaking transport studies, including consideration of railing finished product to Victorian ports for export.

- **Woodchips** to the Port of Portland from the 'Green Triangle' region, which is set to grow to four million tonnes per annum in total. Rail could transport up to two million tonnes per annum of woodchips if the Heywood-Mt Gambier-Penola rail line was reopened and standardised. The rail task would be from Penola, Mt Gambier and possibly Dartmoor although the fragmented nature of timber industry logistics makes rail transport difficult for much of the task. The Port of Portland forecasts that by 2013 woodchips and logs will account for 103,000 truck arrivals per annum or 41% of the estimated 250,000 total truck movements to the port. If rail was able to transport all potential woodchip volumes from Penola and Mt Gambier this would reduce truck arrivals at Portland by approximately 13% (33,000). Rail transport of woodchips could be economically and socially viable with government and timber industry support. The relatively low value of woodchips implies that the transport task is critical to its export competitiveness.
- **Midway Pty Ltd**, a timber company based at the Port of Geelong, plans to increase its throughput of logs railed from the State's north-east from 35,000 tonnes per annum as well as increasing its rail throughput ex Gippsland from 125,000 tonnes per annum. Both increases have been obtained through an auction process with VicForests and present significant opportunities for increased tonnage on rail. In addition, another timber company has a licence to export pine logs from Gippsland through the Port of Geelong and has expressed interest in using rail transport.
- **Visy Industries** has a strong presence in the Wodonga region and its Tumut plant is set to expand by 700,000 tonnes per annum in paper and packaging products. The potential for rail to carry this task depends on the logistics operations including efficient handling through an intermodal terminal. The Wodonga council's new business park, Logic Wodonga, would have rail access and could support this task.
- **Latrobe Valley:** there are a number of industries that could generate rail freight opportunities. These include 700,000 tonnes per annum of logs, a National Distribution Centre servicing the paper and dairy industries and 100,000 tonnes per annum of export briquettes. A long term opportunity for 100,000 tonnes per annum of wet paper to Tasmania would need to go by road due the lack of a rail connection to Webb dock. Another opportunity is the Gippsland Basin containing brown coal reserves centred on the Latrobe Valley which is on an existing upgraded broad gauge railway line. The calorific value of the Gippsland coal is estimated to be three times the value of the proven reserves of the North-West shelf, but requires an intricate and costly process to extract oil. It is anticipated that if this project proceeded on a large scale, it would require rail and port infrastructure for support although a pipeline could also be considered.

RFNR's recommendations on the network outlined in this report will provide the platform for rail-based transport solutions which will facilitate the development of mineral sand deposits in the area. There appears to be a lack of interstate cooperation

to resolve "team Australia issues". For example, in the event of mineral sands expansion in south-west NSW, it would be beneficial for Commonwealth involvement in AusLink funding of rail to Broken Hill for processing which would then be returned through Victoria for export.

RFNR has received evidence of a lack of industry collaboration, the need to deal with numerous Government departments and agencies that has led to difficulties in developing rail freight opportunities. RFNR considers that a single Government entity be given responsibility to assist industry develop rail freight opportunities.

To facilitate and support worthwhile rail freight opportunities, RFNR recommends the establishment of a Rail Freight Development Fund (RFDF) to facilitate rail freight opportunities via (seed) capital contributions to rail freight facilities, perhaps commensurate with the economic benefits captured by the community but not able to be captured commercially by the applicant. This fund would be similar to the Rail Transport Facilitation Fund in South Australia and the Freight Facilities Grant program in the United Kingdom. The South Australian fund was created in 2001 and enables the proceeds of the sale of surplus railway land to be invested in rail infrastructure projects. The UK scheme provides grants to rail freight operators to offset the capital cost of rail infrastructure such as locomotives and wagons or terminals and is also able to be used to offset the cost of track access fees. In either case, the grant is assessed against the environmental benefits of reduced truck use that the rail operation would provide.

Organisations could apply to the RFDF for rail freight projects with demonstrable economic benefit and which is conditional on commitment from a rail operator and shipper. Examples could include rail loading facilities, new railway lines for new significant tonnages or rail facilities supporting intermodal terminals or perhaps support for rolling stock initiatives generating greater efficiency.

In addition to the establishment of a new grain coordination body, RFNR recommends the investigation of the merit of a major pre-grain season convention of grain organisations to coordinate the rail task each year. This would enable an increased awareness of inefficiencies or issues that need to be addressed and provide an opportunity for dialogue between government and industry on investment priorities. Similar conventions occur in other industries such as State Emergency Council and Newcastle coal supply chain.

RFNR recommends the urgent completion of the State Freight and Logistics Strategy to highlight specific initiatives to underpin rail and articulate realistic possibilities to improve the mode share of rail to ports. At the very least this will require:

- keeping existing rail freight on rail (regional containerised exports, grain and other tasks)
- transferring imports onto rail via metropolitan rail shuttles to outer suburban and regional terminals
- pursuing and capturing new regional rail freight opportunities on rail

Recommendation 10: A Government entity be given responsibility for championing and developing rail freight business including facilitating collaboration between stakeholders.

Recommendation 11: Establish a Rail Freight Development Fund (RFDF) to facilitate rail freight opportunities via (seed) capital contributions to rail freight facilities with funding allocations conditional on commitment from a rail operator and freight forwarder/shipper.

Recommendation 15: Continue the upgrading of the Mildura and north-west branch lines compatible with future gauge standardisation to potentially capture mineral sands and other traffics.

Recommendation 16: On commitment by Iluka Resources of sufficient tonnages of mineral sands from the Euston mines to their major separation plant at Hamilton or on the emergence of other significant freight tasks:

- a) rail be designated as the preferred mode of transport for carriage of mineral sands to the separation plant**
- b) standardise the north-west lines as required to accommodate the traffic**

Recommendation 29: This report and its recommendations contribute to the State Freight and Logistics Strategy currently being developed as well as provide input into the Eddington inquiry.

5 CONCLUSION

The Rail Freight Network Review Committee has concluded that there are significant economic, social and environmental reasons to support the retention of a freight only rail network in Victoria. While rail freight services operate on the regional rail passenger network and on the interstate standard gauge lines leased to the Australian Rail Track Corporation, over half of the Victorian rail network is freight only. The condition of most of this network has declined significantly since the mid 1990s leading to the very real threat that much of it will close within three to five years unless the maintenance backlog on the network is rectified and the required track upgrades are undertaken. The consequences of closure of much of the freight only rail network is an additional 100,000 truck trips per annum on the State's regional roads with much of this concentrated between November and February because of the grain harvest. This will cause significant port congestion as well as increased road damage, increased risk of road accidents and increased greenhouse gas emissions.

The alternative is for the Government to invest \$140.7 million over three years to rehabilitate and maintain the majority of the freight only rail network which will support the retention of regional rail freight services. These are critical to supporting the Government's objective of 30% rail freight mode share to ports. This investment will improve the export competitiveness of farmers and other producers of agricultural commodities, improve road safety, reduce transport fuel use and greenhouse gas emissions and reduce the impact of trucks on rural communities, particularly local government road budgets.

Expenditure on the regional rail freight network is an investment in a sustainable transport system and improved triple bottom line performance for the State.

6 CHAIRMAN'S EPILOGUE

So near, but yet so far. RFNR has come a long way in less than six months, moving quickly and comprehensively to cover the Terms of Reference issued by Minister Lynne Kosky. The result is this report, titled in shorthand 'SWITCHPOINT' with 29 direct and practical recommendations unanimously adopted by the Committee and submitted to the Victorian Government for consideration.

I would like to express my deep appreciation to my fellow committee members who worked long and hard on the report in a way that was a refreshing change with my past experience in certain parliamentary committees. Also my thanks to the very dedicated secretariat led by John Clarebrough assisted by David Hill and Bernadette Foley and consultant Chris Tehan. An external consultancy Strategic design & Development led by Tim Hoffman, along with the Reference Group, provided valuable guidance to RFNR.

In addition, I thank all who made submissions and who attended the various public meetings and forums right across Victoria and in Lockhart and Oaklands in southern NSW. All in all, it has been an interesting and motivating set of tasks and I thank the Minister for the privilege.

In conclusion, I highlight the good, the bad and the ugly as found at the river port border town of Echuca. At sunrise on the morning of Wednesday 24th October the Chairman of RFNR, later all members of RFNR, sighted the very best and some of the very worst of rail infrastructure at the Echuca railway station yards.

A glistening set of broad gauge rail lines were sighted in the early morning sunshine, climbing a gentle grade to the relatively new Murray River Rail Bridge. This carries the Echuca / Barnes / Deniliquin regional railway line northwards, which connects at Barnes with the Caldwell (previously Moulamein) line.

At the Echuca station platform the 0725 am V/Locity to Melbourne was loading passengers and opposite in the Echuca rail yard, a well kept long rake of modern bulk grain wagons and a small rake of boxcars awaiting business.

Then came an interesting discovery, an example of corporate rail vandalism that is a demonstration of the worst and best of 21st century rail culture. The newest Irish broad gauge branchline in the world (Brazil and Ireland are the only other users of 1600mm gauge) runs from the Echuca rail yard to the Echuca wharf platform and port tourist precinct. The Echuca wharf branchline was opened by then Transport Minister Peter Batchelor in the 21st century. Sometime shortly afterward, before charter tourist trains could be established to the wharf, the lever to operate the key points was removed.

Fifty sleepers past these points, two joining plates have been removed and one sleeper raised and shifted eastward to create a clear cut break in the connection of this 21st century built branchline from the Victorian network. Presumably this is for old-rail culture reasons.

Whilst I concede there is next to zero rail freight potential to and from the Echuca Wharf, I observe there is tourist charter train potential and further it would take just two people two hours to re-connect Victoria's newest branchline to the network.

All of this in sharp contrast to the key unlocked points at Korong Vale, where the Sea Lake/Kulwin branch departs from the main Robinvale Line, points well oiled and able to be operated at a flick of the wrist, notably without any locking device.

RFNR is convinced its recommendations will deliver improved rail freight in Victoria, to make significant changes in the best and the worst.

Tim Fischer AC
Chairman

Appendix A List of submissions

Organisation	Author
ABB Grain Ltd	John Warda (Executive Manager National Supply Chain)
Alan Parker Design	Alan Parker
Alliance for Councils for Rail Freight Development	Cr Geoff White (Chairman)
Amcor	Greg Philpot
Asciano Ltd	Don Telford (Chief Operating Officer)
Auschar Group	Kevin Maxwell (Logistics Manager)
Ausplaztik Pty Ltd	Chris Currin (Managing Director)
Australasian Railway Association Inc	Brian Nye (Chief Executive Officer)
Australian Bulk Alliance	Simon McNair (General Manager)
Australian Paper	Phillip Porter (National Logistics Manager)
Australian Rail Track Corporation Ltd	David Marchant (Chief Executive Officer) Glenn Edwards
AWB GrainFlow	Grant McDougall (General Manager)
AWH Pty Ltd	James Phyland
Balco	Gary Pattinson
Bemax Resources Ltd	Antoine F Shirfan (Managing Director)
Bendigo City Council	John McLean (Chief Executive Officer)
Berriwillock Silo	Garry (President)
Border Express	Max Luff
Campaspe Shire	Jon Aujard (Assets and Planning Executive Manager)
Central Goldfields Shire	Mark Johnston (CEO)
Central Goldfields Shire	Lynne Josephs (Technical Services)
City of Ballarat	David Vendy (Mayor)
Corowa Shire Council	BJ Corcoran (General Manager)
Department of Industry, Innovation and Regional Development	Warren Hodgson, Secretary
East Gippsland Shire Council	Chris Waites
El Zorro	Geoff Tighe, Paul Ellul
Essential Services Commission	Greg Wilson (Chairman)
Fast Track Freight (Victoria) Pty Ltd	Bernard J Curtin (Chief Executive Officer)
Flour Millers Council of Australia	Graeme Lukey (Executive Officer)
Food Bowl Inland Rail Alliance	Bob Laing (Chief Executive Officer)
Freight Gate Operators	Kevin Tyrell
Gannawarra Shire Council	Roger Griffiths (Economic Development Manager)
Geelong Port Pty Ltd	Lindsay Ward (General Manager)
Glenelg Shire Council	Cr Gilbert Wilson (Mayor)
Golden Plains Shire Council	David Madden (Acting Chief Executive Officer)
Goldfields Railway	Andrew Bridger
GrainCorp Operations Ltd	Neil Johns
Grains Council VFF	Rob McRae
Great Australian Trunk Rail System Pty Ltd	Barry Donaldson (Director)
Greater Dandenong	Tim Tamlin (Director Engineering Services)

Green Triangle Regional Plantation Committee	Dr John Kellas (Executive Officer)
Hamilton VFF	Katrina Rainsford
Hindmarsh Shire Council	John Hicks (Chief Executive Officer)
Horsham Rural City Council	Tony Bawden (Acting Chief Executive Officer)
Iluka Resources Ltd	Peter Beilby (General Manager)
John Hearsch Consulting Pty Ltd	John Hearsch
Latrobe City Council	Paul Buckley (Chief Executive Officer)
Leigh Allen	Allens Freight
Loddon Shire Council	Peter Mitchell (Manager Agribusiness & Economic Development)
Mars Pet Care	Shane Azzi
Melbourne Brisbane Inland Rail Alliance	Bruce Wilson (Deputy Chair)
Melbourne Metropolitan Port Shuttle Group	Bill Green (Convenor)
Mildura Rural City Council	Phil Pearce (Chief Executive Officer)
Mildura/Mallee Community for the Return of the Passenger Train	Geoffrey Brown
Mildura/Mallee Community for the Return of the Passenger Train	Mary J Chandler
Moira Shire Council	Gary Van Driel (General Manager Infrastructure and Environment)
Moreland City Council	Peter Brown (Chief Executive Officer)
Mornington Peninsula Shire	Allan Cowley (Acting Manager - Strategic Planning)
Murrayville VFF Branch	Kevin Willersdorf (President)
North West Municipalities Association	James McKay (Secretary)
Northern Grampians Shire Council	Jim Nolan (General Manager Customer Service)
Paclib	Mark & Chris
Patrick Portlink	Geoff Hartley
Port of Hastings Corporation	Ralph Kenyon (Chief Executive Officer)
Port of Melbourne	Stephen Bradford (Chief Executive Officer)
Port of Portland	Scott Patterson (Chief Executive Officer)
PTUA Geelong Branch	Paul Westcott (Convenor)
Pyramid Hill Progress Association	Vincent Bartels
QRNational	Michael Goldspink (Business Analyst)
Quambatook Silo Committee	Malcolm Knight
Rancho Holdings Pty Ltd	Jakob Vukasinovic (Director)
Redgum Timber Producers (Australia) Pty Ltd	Ron Sharples (Managing Director)
Rural Councils Victoria (RCV)	Cr Rob Gersch (Chair)
Shepparton City Council	Bob Laing (Chief Executive Officer)
Shepparton City Council	Matthew Nelson (Economic Development Officer)
South East Australian Transport Strategy Inc (SEATS)	Chris Vardon OAM (Chief Executive Officer)
Southern Grampians Shire Council	Cr Mick Leeming (Mayor)
SteamRail Victoria Inc	Stuart Thyer
Strathbogie Shire Council	Kevin Hannagan
Urana Shire Council	John S Hunt (General Manager)
V/Line	Rob Barnett (Chief Executive Officer)
V/Line	John Peterson
Victorian Farmers Federation	Simon Ramsay (President)
Victorian Freight Logistics Council	Rose Elphick (Chief Executive Officer)
Visy	Matthew Warrington

Wakefield Transport Group	Ken Wakefield
Waste Not Hayfeeder	Terry Allen
Wellington Shire Council	Bruce Graham (Director Strategic Development)
Western Transport Alliance	Ian Robbins (Chief Executive Officer)
Wimmera Container Lines	Rodney Clarke (Managing Director)
Wimmera Development Association	Philip Sabien (Executive Director)
Wimmera Regional Transport Group	David J Eltringham (Secretary)
Wodonga City Council	Michael Gobel (Director of Investment Attraction)
Wyndham City Council	Ian Robins
Yaapeet Silo Committee	Don Fisher
Yarrawah Engineering Services Pty Ltd	RL Topp (Managing Director)
Yarriambiack Shire Council	Ray Campling (Chief Executive Officer)
	Chris Shaw (Mining Metallurgist) Carisbrook
	Cr Harold Flett
	David Bell
	George E Gregson
	Helen Freeman
	Maria I E Riedl
	Matt Mushalik
	Mike Caldwell (Maryborough Resident)
	Noel Laidlaw
	Peter Crisp (Member for Mildura)
	Peter Hinksman
	Roger Drewitt
	Tim Burke (Retired Hopetoun Resident)
	Tony Thomas
	Trevor Andrews
	Peter Hill - VFF (Farmer Mitiamo)
	Shane O'Loughlin (Maryborough Resident)
	Brian Baker (Laanecoorie Resident)
	Mal Shilling (Rainbow Farmer)
	Alan Malcolm (Hopetoun Farmer)
	Russell McKenzie (Yaapeet)
	Jeff Kendall
	Brian Barry (Manangatang)

Appendix B Rail closures and agonies

RFNR has noted ongoing contraction of the Victorian rail network:

- 1950s, 23 lines were closed, totalling 614 route km
- 1960s, 6 lines closed, 241 route km
- 1970s, 17 lines closed, 695 route km
- 1980s, 26 lines closed, 1138 route km
- 1990s, 6 lines closed, 328 route km

In total 78 lines, totalling 3016 route km; have been closed in Victoria in the last 50 years.

It is instructive to reflect on some of the branchline closures demonstrating the original spread of the rail network, designed and built in the phase prior to the advent of cars and trucks.

Grain

1. Wahgunyah
2. Peechelba
3. Katamatite
4. Picola
5. Girgarre
6. Colbinabbin
7. Cohuna
8. Stony Crossing
9. Morkalla (Meringur)
10. Yanac
11. Botangum
12. Carpolac
13. Navarre

Non Grain

1. Port Albert
2. Woodside
3. Wonthaggi
4. Jumbunna
5. Mirboo North
6. Orbost
7. Briagolong
8. Yannathan
9. Warburton

10. Healesville
11. Whittlesea
12. Alexandra
13. Mansfield
14. Tatong
15. Yackandandah
16. Bright
17. Cudgewa
18. Shelborne
19. Redesdale
20. Lancefield
21. Heathcote Junction to Bendigo via Argyle
22. Waubra
23. Skipton
24. Alvie
25. Timboon
26. Mortlake
27. Port Fairy
28. Warrnambool-Hamilton via Hawkesdale
29. Coleraine
30. Casterton
31. Hamilton-Horsham via Balmoral
32. Rennick – Mt Gambier