Rail Futures Institute Inc

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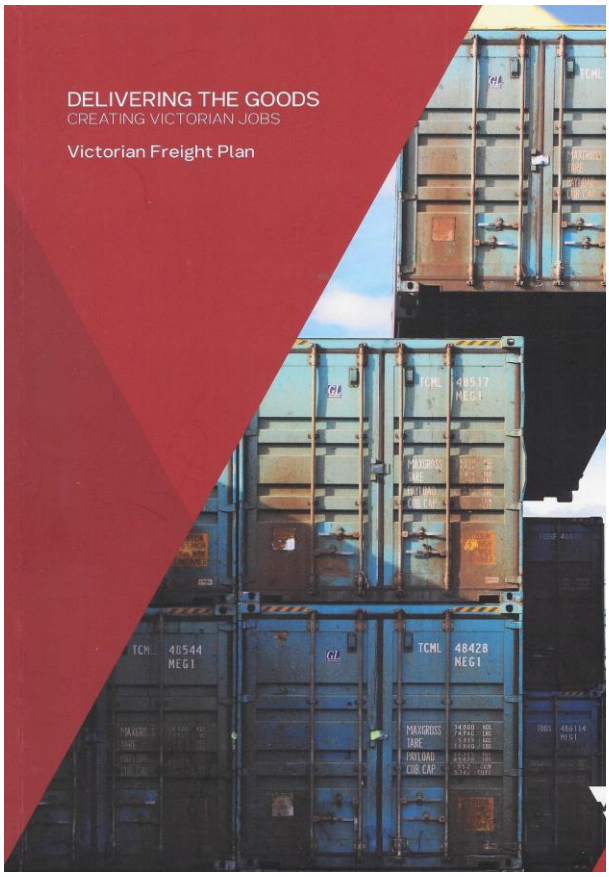
REVIEW OF 2018 VICTORIAN FREIGHT PLAN



CONTENTS **Page**

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Rail Futures Institute is an independent non-partisan group. It was formed in 2013 to advocate cost-effective rail and intermodal solutions for public transport and freight problems based on sound commercial, economic and social reasoning. Rail Futures members include experienced rail professionals, urban planners, engineers and economists.

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REVIEW OF 2018 VICTORIAN FREIGHT PLAN

OVERVIEW

In July 2018 Transport for Victoria released a Freight Plan – "Delivering the Goods; Creating Victorian Jobs; Victorian Freight Plan".

The Plan projects a threefold increase in freight by 2050 and announced the creation of Freight Victoria (FV) as a separate entity within the Department of Transport to *"lead and drive the coordinated delivery of this plan"*[1]. The Plan has a *"five-year program of priorities and actions …… including growing the share of freight moved by rail"*[2]. FV has been operative since September 2018.

Rail Futures Institute (RFI) is an independent non-partisan group formed to advocate cost effective rail and intermodal solutions to public transport and freight problems based on sound commercial, economic and social reasoning. As such, we have a particular interest in the rail and intermodal parts of the plan.

Three years on, RFI believes it is now an appropriate time to review the Plan and its proposals, to examine what has been achieved and the forward trajectory it has set, especially in the context of rail freight and intermodalism.

In this respect the Plan does not start well. The long list of current or committed freight investments contains only three that are specific to rail, plus another three which relate to intermodal terminals. These include the Port-Rail Shuttle Network, under development for many years but yet to see operations commence, and proposed Interstate Freight Terminal(s), also under development, but a long way from actuality. Thirty-eight other projects mostly involve enhancement of road freight capability.[3]

An Appendix (pages 12-14) summarises RFI's views as to the present status of short term (1 to 5 years) proposals and actions itemised in the Plan. First, we discuss five areas of concern that are pivotal to the future of rail freight in Victoria. They are under the headings of:

- Management
- Funding and Investment
- Network Planning
- A Level Playing Field
- The Environment

To achieve a suitably fit for use freight railway will require significant changes in these areas. If present trends continue,

The Murray Basin Rail Project saga

Two of the three current/committed rail freight projects discussed in the Plan are the **Murray Basin Rail Project (MBRP)**, essentially a gauge standardisation project and still only around half complete, and the Ballarat centred **Freight-Passenger Rail Separation Project (FPRSP)**, effectively part of the MBRP. The latter ceased to have relevance when the MBRP failed to reach Ballarat.

In the words of the Victorian Auditor-General, both projects *"have not met scope, time, cost or quality expectations"*. Both suffered from "*deficient project planning, cost estimation and scoping"*, and *"inadequate contract and project management"*.

Failure to complete the MBRP has resulted in less efficient rail service and a significant increase of freight on road due to increased costs and transit time for trains from the Merbein line having to travel an extra 129km via Ararat to get to the ports of Geelong or Melbourne – the exact opposite of the intent of the project.

[1] "Ministerial Foreword, page 5, Victorian Freight Plan", Transport for Victoria, July 2018
[2] "Delivering the goods – next steps, page 52, Ibid.
[3] "Current Freight Investments" pages 10-11, Ibid.

there may be a limited future for rail freight in Victoria. Alternatively, if appropriately addressed, these factors can put the rail freight infrastructure and operations on a more sustainable basis well into the future.

MANAGEMENT

The 2021/22 State Budget (Thursday 20th May 2021) contained the statement, *"Rail freight will continue to play a key role in reducing congestion and environmental impact for the movement of goods. With Victorian freight volumes expected to more than double by 2051, the Labor Government will continue supporting the growth of rail freight to get trucks off local roads".* These are admirable sentiments but action is needed if they are to be achieved – completion of the Murray Basin Rail Project and track upgrading on freight-only lines are two such examples. An action-oriented update of the 2018 Plan should sharpen the focus and push for real progress.

At present the freight lines (divided across two gauges) are an integral part of the greater group of regional lines for the purposes of infrastructure management and funding. The routes that have passenger and freight services are in reasonable condition and in terms of track quality do not present an issue, although the provision of capacity for anything but scheduled passenger train services on these routes has become a problem due to increasing network congestion from more frequent urban and regional passenger trains. However, on those lines that are now 'freight only' the track condition is progressively declining, with periodic bursts of sectional 'upgrading' that is little more than partial recovery of degradation arising from an accrued lack of maintenance.

Another significant issue is that of extended 'track shutdowns' for major works. In most cases, extensive arrangements are made for alternative passenger services but impacts on freight customers are often overlooked – the multiplicity of shutdowns for level crossing removals are a case in point. Without strong rail freight advocacy, the imposition of long shutdowns to suit project programs has become all too common with a resultant devastating impact on rail freight due to increased costs and loss of customer confidence in using rail. While passengers get a free bus during track disruptions, rail freight customers and rail freight operators receive no compensation and must incur the extra cost of using trucks and the holding cost of unused rail assets. On one weekend in February this year not one broad gauge grain train could operate due to track disruptions with thousands of tonnes of grain having to be trucked to the ports of Geelong and Melbourne.

Anecdotally, we understand that companies like GrainCorp are increasingly shifting their focus to NSW due to ongoing track disruptions and network capacity issues in Victoria affecting reliability and transit times. For example, a grain train in NSW can achieve four cycles per week between silos and port whereas in Victoria it might only get two cycles. As grain trains have a high fixed cost it makes sense to operate them on a network where they can be used more efficiently. Whereas rail mode share of export grain in Victoria used to be about 65% a decade ago it has now declined to half that due to track disruptions and rail network capacity issues.

Despite the stated policy that *"increasing the volume of freight carried on rail is more important than ever"*[4], the general perception among rail freight customers and operators is that:

- no one within Government has apparent authority to champion rail freight;
- no designated person or section is directly responsible for the rail freight network infrastructure, or for interfacing with the wider rail network on their behalf;

[4] "Priority 3: Better use of our rail freight assets", page 42, ibid.

- V/Line's focus is on passengers and the passenger network even though its charter is to manage the regional rail network for all its users including and freight customers
- there is a lack of emphasis on the operational and engineering subtleties between the freight and passenger network and/or combined traffic requirements;
- no clearly articulated vision exists for freight rail infrastructure of the future – gauge standardisation, increased axle loads, line speeds aligned to efficient train operations and adequate corridor capacity – in contrast, the NSW regional rail freight network has had a major upgrade program over the last decade to enable heavier axle loads and faster speeds and this program is continuing;
- no one is responsible for ensuring that incremental infrastructure upgrading retains relevance in the context of a nationally competitive freight business.
- no one is directly responsible for ensuring that the rail freight infrastructure is maintained to its intended standard;
- no one is responsible for ensuring that the rail freight infrastructure has performance-based standards established with reference to the commercial freight world;
- the government's focus is on road freight with the continual introduction of bigger and heavier trucks (HPFVs) including A-doubles, most recently over an additional 3,000 km of Victorian roads. These vehicles are highly competitive with rail freight, despite the Freight Plan stating, "*Consider rail in the freight task when assessing the requirements for upgrading the HPFV network*"[5]. The impact of bigger and heavier trucks on rail freight can be seen in South Australia where grain train operations in the Mallee region and on the Eyre Peninsula have completely ceased, in the latter case because of the introduction of A-B triple trucks (a semi-trailer with a B-double attached) that can transport 60 tonnes of grain. There are now 15,000 extra truck trips on the Eyre Peninsula's roads each year mixing with tourists, school buses and other road users.

Words such as *upgrade, duplication, strengthening, alternative route* appear frequently in the Plan. However, these words appear almost exclusively in association with road projects. There is no such language in relation to rail, and the projects that should have been of significance are now languishing for reasons that have nothing to do with the actual freight industry or its customers. The contrast is stark - on one hand incremental improvements are encouraged on the road network with no reference to competitive factors or community *best value* while rail projects of real economic and community value – such as the full Murray Basin Rail Project - are allowed to stagnate.

The single most important need for rail freight is an appointed Freight Champion:

- who has authority and responsibility;
- who has a comprehensive understanding of the freight and logistics business;
- who knows how supply chains work and the place transport plays in them;
- who understands rail and particularly freight rail in all its complexity and its opportunities; and finally
- someone who is suitably experienced to understand the potential capability of existing infrastructure, using the best available practices to progressively improve the freight network for higher axle loading and speed – essential if rail freight is to remain competitive.

In short, rail freight needs planning, structure and management which is dedicated to that function and which will not allow rail freight to be dismissed as the not-very-important part of a passenger train operator's (V/Line's) infrastructure arm.

[5] " Expand the HPFV network", page 32, ibid.

Failure to act to get more freight on rail is simply a recipe for more loads on roads with adverse road safety impacts, higher costs for road maintenance, more air pollution and higher emissions.

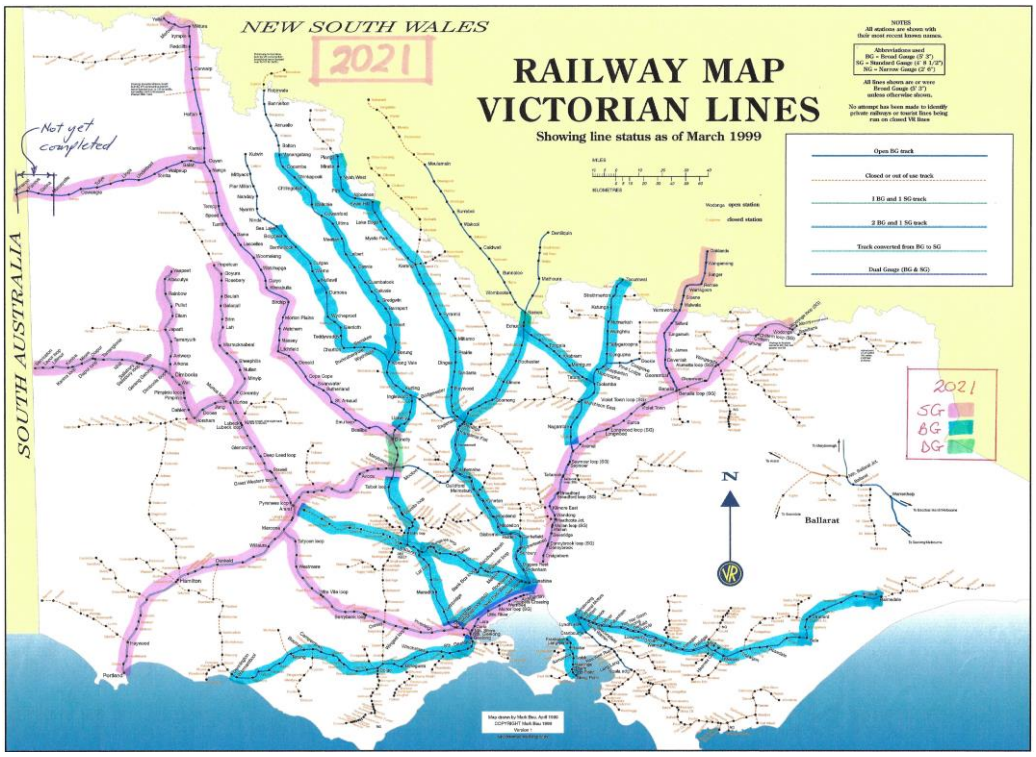
FUNDING AND INVESTMENT

Rail freight needs its own line of funding, more so if it is to have its own Champion (Manager). This needs to cover the ongoing (sustainable) costs associated with maintaining the freight lines to their designated standard (i.e. no permanent or temporary speed restrictions) in their current and future configurations. It should be managerially and financially independent from V/Line which presumably would continue to be the operator, manager and maintainer of the regional passenger network.

There is 1755 km of **freight only** lines in Victoria comprising 1077 km of active standard gauge, 678 km of active broad gauge, plus 302 km of out of service broad gauge track, the latter managed by VicTrack. Most of the active freight lines come under the management of V/Line as State Infrastructure Manager, along with 1246 km of **combined regional passenger and freight** lines and 220 km of **purely passenger** regional routes. The freight only network comprises 43% of the State's regional rail network. All broad gauge freight trains also operate over regional passenger lines as part of their journeys.

In addition, interstate standard gauge passenger and freight lines and the Maroona – Portland line totalling 995km are under ARTC lease and control. The standard gauge interstate lines give access to the Australia-wide DIRN (Defined Interstate Rail Network). Producers with access to Victorian standard gauge lines are able to transport freight on rail to all mainland States. Fig. 1 below shows the extent of standard gauge and broad gauge lines at the present time (2021).

Figure 1 Victorian Rail Map showing 2021 extent of standard gauge and broad gauge lines



Minimal capital funding availability over many years for upgrading the freight-only lines has contributed to Victoria having technically and operationally conservative freight rail operating conditions. This has hampered productivity and competitiveness with road transport. For example, the permissible axle loading for most routes has remained unchanged at 19 tonnes axle loading (TAL) for the last 70 years. In the few cases where marginally higher axle loading has been permitted, (e.g. 21 TAL on the Merbein line and 22 TAL for the Maryvale paper train) it has been largely siloed and not part of any network improvement plan. Other standard gauge networks, mainly under ARTC management [Qld, NSW, Vic, SA] and Arc [WA] have higher minimum axle loading limits at 23 TAL, often under similar/identical engineering and operational infrastructure conditions. In NSW, the Country Rail Network (CRN) has a funded improvement plan for regional routes to be progressively improved to 25 TAL.[6]

Another outcome from conservative technical and operational management in Victoria, is that, alone among all the other rail infrastructure jurisdictions, Victoria's freight-only lines still continue to have a high reliance on timber sleepers. Other Australian rail infrastructure organisations have adopted concrete sleepers for main lines and steel sleepers for secondary lines. This has effectively halved ongoing infrastructure maintenance costs as a consequence of much reduced sleeper replacement cycles. Both NSW (7128 km) and Queensland (8146 km) are on the cusp of having no timber sleepers remaining in their networks. This sort of productivity gain, with reduced ongoing maintenance costs, is critical to the competitive success of rail freight.

As evidence of the poor state of Victoria's freight-only lines, as at June 2021, no less than 27% of the network had "Temporary Speed Restrictions" (TSRs) applied[7] notwithstanding that almost half of the same network had low 'normal' freight operating speeds of 50 km/h or less. The majority of these restrictions are due to poor sleeper and ballast condition caused by lack of maintenance funding. Numerous instances are now evident where a competing truck can do a complete round trip in less time than a freight train can complete a one-way trip – a significant and unnecessary loss of competitive productivity for rail.

The Victorian situation is further complicated by not only having the only remaining regional broad gauge freight lines in the country, but that the state also now has all but two of the national breaks of gauge. Despite this, Victoria continues to ignore the opportunity to simplify resolution of the gauge problem by using long-life (i.e. other than timber) gauge convertible sleepers. For example, we understand the present upgrade of the Shepparton line is to use non-gauge convertible concrete sleepers that will have to be replaced at great cost if the line is converted to standard gauge, as has often been discussed. This represents a serious financial and technical failure on the part of V/Line, the incumbent infrastructure manager.

Funding for the Regional Freight Network must include an allowance for progressive incremental improvements to enable it to remain competitive as technology and productivity advance. The alternative will inevitably lead to a situation of commercial irrelevance. The current trajectory risks a future with minimal – or even zero – freight on Victoria's regional rail network.

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[6] For a comprehensive picture of the progressive improvement program on NSW regional routes as a consequence of focused and enlightened infrastructure management see, ***"NSW Regional Infrastructure Update"*** by ***John Hoyle,*** **Railway Digest, May 2021,** Australian Railway Historical Society, NSW Division.

[7] For example, 74 km of the Manangatang line, used by the Ultima container train and grain trains, is subject to 20-30km/h speed restrictions between Korong Vale and Lalbert.

NETWORK PLANNING

There is apparently no rail network plan for Victoria which includes the freight-only lines. Arguably the last was the Victorian component of the National Gauge Conversion Plan, devised by Sir Harold Clapp in 1945 with the strong support of the then Federal Transport Minister, Eddie Ward. According to Ron Fitch, former South Australian Railway Commissioner in the 1950s, it was only the unfortunate timing of the Menzies Government coming to power that stopped the plan going ahead.

Gauge conversion in Victoria has proceeded sporadically since 1962 when the Albury – Melbourne standard gauge (SG) line was completed. The single break of gauge created in Victoria at that time was partially dealt with via a relatively efficient (for the period) bogie exchange facility in Melbourne (South Dynon). It was not until the mid-1990s when the Melbourne – Adelaide line was converted to standard gauge (thus ending the practice of bogie exchange at major break of gauge locations) that the gauge fracture really started to become an issue within Victoria. This coincided with separation of the state's network into urban, regional and interstate components under the twin drivers of Competition Policy and Privatisation Ideology.

The lack of ongoing network planning in Victoria has resulted in all but two of the remaining national breaks of gauge being in Victoria. The State does not have a connected intrastate regional network but rather a dysfunctional mix of broad gauge and standard gauge lines. Unlike the original state-based breaks of gauge, the impact is no longer end-to-end, but results from the creation of two independent but overlapping networks that are both sub-optimal as a consequence.

The mix of gauges within Victoria is seriously hampering rail freight efficiency. Rail freight, far more than passengers, is dependent on broad based regional economics than those dictated by state borders. Recent (2019/20) experience shows that large volumes of grain moved from Victoria to NSW (for drought relief) originated from those lines that are standard gauge, thus highlighting the benefits of having a nationally cohesive freight network. Conversely, grain on the broad gauge network was restricted to traditional export and domestic markets and was unavailable to meet spot market or cross-border opportunities, in many cases resulting in lower returns to growers. Grain required from those lines for domestic use interstate was trucked due to the lack of direct interstate rail access.

Even more recently, the failure of rail to deliver a majority share of the 2020/21 grain task into Geelong (it has been less than 40% this season) should be a wakeup call. Additional to increased costs imposed by the incomplete Murray Basin Rail Project, the mixed gauges of the Victorian freight network, degraded state of some grain rail lines with severe speed restrictions (as noted above), limited network capacity on most grain lines[8], compounding capacity constraints wherever passenger trains operate and continual track disruptions due to major projects have all conspired to reduce rail's share of the export grain task. These issues are causing serious commercial considerations for rail freight operators and their customers, particularly for the grain industry, i.e. do they invest in Victoria or elsewhere where they can obtain a better return on their assets?

The issue of capacity requires further explanation. On freight-only lies this is a function of the safe-working system – in this regard the existing Victorian Train Order system is particularly cumbersome and inflexible compared to more efficient systems in other parts of the country (e.g. on the NSW Country Rail Network). The inability to have more than one train at a time on some lines, particularly in the Mallee and Wimmera grain growing areas, is an unnecessary impost on rail's own performance. The Bendigo – Echuca line upgrade will

[8] For example, the 113km section between Korong Vale and Ultima on the Manangatang line can only have one train – grain or container – at a time; there are also no crossing loops for 169km between Korong Vale and Warrenheip, 7km east of Ballarat.

provide for the use of Electronic Train Orders and this system should be implemented on the freight-only rail network as soon as possible to improve the efficiency of train operations on those lines.

A different capacity problem exists on the combined regional passenger and freight lines. Most of these lines have been re-configured and upgraded since the early 2000s to accommodate large increases in passenger service frequencies but without consideration of capacity requirements for freight. We understand planning is in hand for the Bendigo line to be re-configured for 20 minutes peak and 40 minutes off-peak frequency passenger services. However, this will effectively prevent operation of freight trains on the entire line except for a short period at night. With modest additions to the project scope (additional intermediate crossovers on double track and passing lane sections), freight trains can also be accommodated when required at off-peak times. A similar approach will be essential when new signalling is installed on the Seymour line.

An associated issue is the network's inherent reliability and resilience. Available routing alternatives to work around occupations or other disruptions or to improve overall operating efficiency should be provided wherever this can be done at modest cost. The two most obvious examples where this should occur are the re-instatement of cross-country lines from Toolamba to Echuca and from Eaglehawk to Inglewood. Both of these line sections also have potential to generate new rail freight business.

All of these factors need to be addressed in a new Rail Network Plan which specifically provides for a substantial increase in the share of freight moved by rail. It should provide a framework for determining the standards for freight network track (the assumption being that the passenger network over which freight is operated will always be of relatively high standard). Such matters as axle loading, freight train speeds, lengths of trains, passing lanes/crossing loops and provision of loading/unloading sidings for prospective rail freight traffic are all relevant matters for the Network Plan and should be addressed with reference to operational and commercial needs as well as engineering realities.

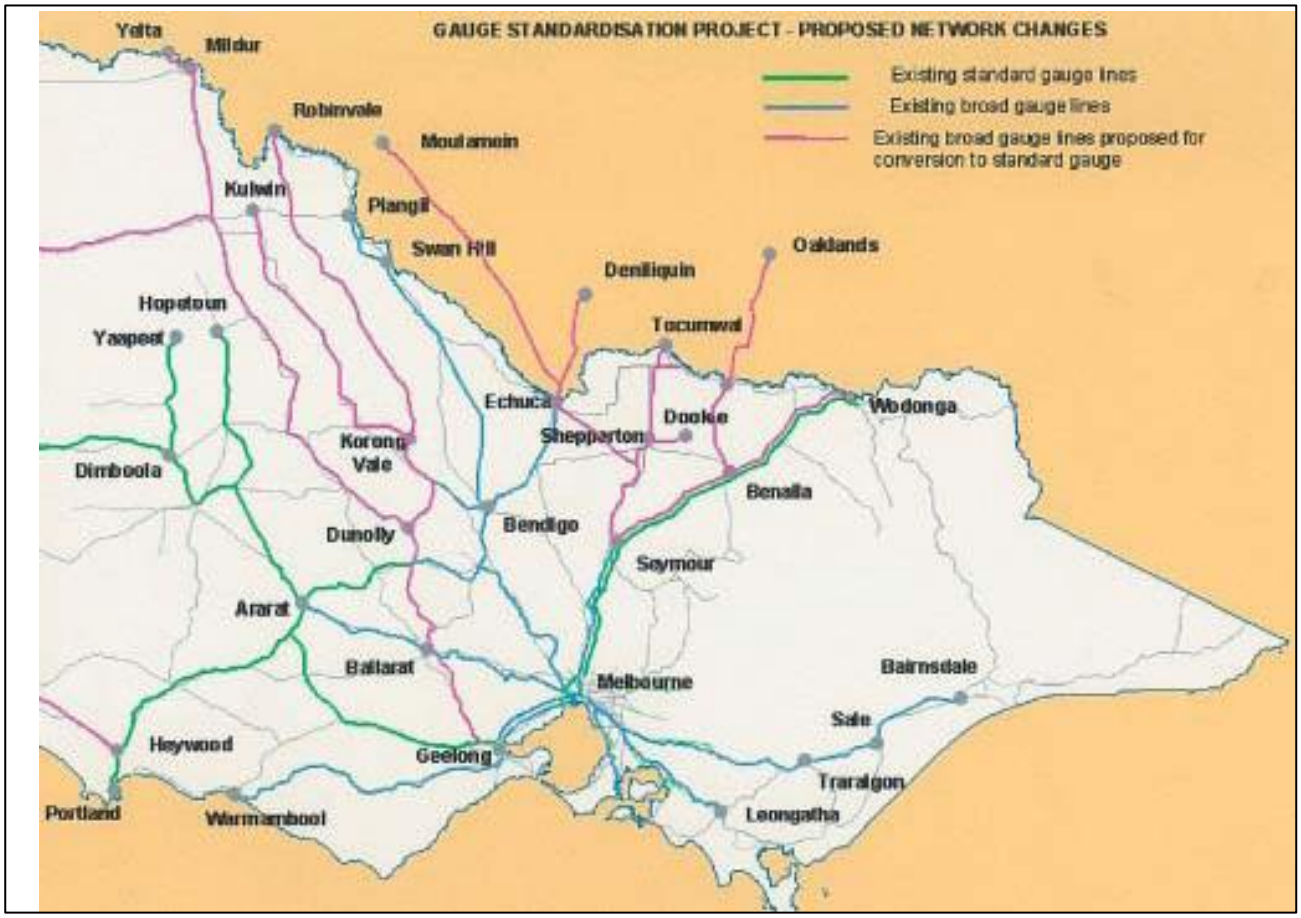
The broad gauge locomotive fleet within Victoria comprises 29 locomotives used by V/Line for passenger working and around 35 locomotives used by three rail freight operators. Utilisation of the freight locomotives can be relatively inefficient at times since their number needs to be balanced against the demands of seasonal fluctuations in traffic e.g. with high demand for grain trains this year there can be difficulties managing the broad gauge locomotive fleet due to the competing demands of grain trains and regular, scheduled services such as export container trains from regional terminals. This issue also highlights the lack of flexibility in resource use – broad gauge locomotives and wagons cannot be used in other states during times of low demand in Victoria whereas standard gauge equipment can be moved between systems as required.

Poor utilisation opportunities for both locomotives and wagons inhibits renewal investment in these resources – investment will be directed to those activities with the greatest earning opportunity which are far more apparent on the national standard gauge network. This highlights the fact that the broad gauge freight network is operated by ageing locos (and wagons) which continue to be refurbished but are increasingly technologically dated. This is commercially and environmentally unsustainable as a long-term prospect. There is no incentive for rail freight operators to invest in new broad gauge locomotives (which are more expensive than standard gauge locomotives because of their specialised requirements) due to low financial returns and limited applications for their use. As broad gauge locomotives and wagons become increasingly older (the newest broad gauge locomotives are 14 years old and the oldest are 69 years old) they will become increasingly difficult to operate due to their condition and availability of spare parts which will likely result in the demise of broad gauge rail freight operations.

The priority for a Victorian Rail Network Plan is to rectify the gauge issue, with progressive implementation in an orderly way in as short a time as reasonably achievable. In 2001, this was recognised by the Bracks State Government which had the vision encapsulated as, "*The standardisation of Victoria's country rail network will end more than 120 years of Victoria's rail system being disconnected from the national rail network. It will create a seamless freight system linking Victoria's industries with national and global economies*"[9]. Figure 2 illustrates the initial stages of the Bracks' gauge standardisation plan.

Despite best intentions a number of factors prevented most of this plan being achieved – deficiencies in the initial rail fragmentation that allowed the policy to be subverted by private interests, the ongoing 'who pays' disagreements between various governments and most recently the very public failure to properly conceive and manage the Murray Basin Rail Project. The underlying factor has been a lack of focus on the main issue – the continuation of a fractured freight rail network.

Figure 2 Initial stages of the 2001 gauge standardisation plan for Victoria



A LEVEL PLAYING FIELD

The term 'Level playing field' in freight transport terms relates to the regulatory, funding and pricing regimes applying to rail and road transport. It is recognised that most of the issues in the Level Playing Field are national in scale. Victoria on its own has little capacity to make changes but that does not prevent the State from proposing changes (and the form and purpose of those changes) via the appropriate national (inter-governmental) forums. Anything that changes or adapts the larger system to become more effective and

[9] Peter Batchelor, Minister for Transport, State Budget 2001 media release, 15 May 2001.

efficient in the overall freight function would lead to improved freight transport outcomes by reducing the pricing and regulatory discrepancies between rail and road freight. An appropriate 'statement of issues' of national importance within the State Freight Plan would be a useful start to the process.

The conventional understanding of the 'level playing field' between road transport and contestable rail freight relates to the unequal treatment of the usage cost of infrastructure. Rail freight operators are required to pay a mass/distance based track access charge based on train weight and the distance the train travels. In contrast road user fees for trucks to pay for road damage comprise a registration fee and fuel excise charge. The registration amount varies per type of truck but is based on the average truck weight in each vehicle class. The effect of this is that fully loaded trucks traveling long distances are under charged for the road damage they cause while trucks travelling shorter distances are over charged. Trucks travelling short distance delivering containers to intermodal terminals for transport by train are subsidising trucks travelling longer distances competing with rail. Heavy road vehicle operators pay what effectively is a token annual fixed cost and a token fuel excise that clearly do not equate to a comparable user pays system.

All the evidence indicates that heavy road trucks travelling long distances do not pay for the Capex and maintenance that is attributable to them, as distinct from lighter trucks and small passenger vehicles. This problem has been recognised for a long time and in the last decade or so has been on the inter-governmental transport agenda as a 'need to fix' issue.

Despite the evidence from as near as New Zealand that a user pays system (distance/mass charging) can be successfully applied, Australia's governments are yet to proceed and have actually frozen the 'fixed cost' fees for trucking for the past several years (although this is presently being reviewed). The consequence is the slow shredding of any concept of a balanced domestic freight transport industry.

However, should there be little prospect of the road cost recovery issue being seriously addressed, the alternative could be to remove the burden of rail freight access charges which form the basis of the user pays system imposed on train operators.

There are other institutional issues that militate against rail freight. Rail regulation is a contentious area, not for its core objective of safety oversight but for its indifference to the impact of its deliberations outside of the narrow rail safety definition.

There are two issues here – the first being that rail regulators have no obligation (or even authority) to consider what happens if freight is transferred to road as a consequence of action (or inaction) on their part.

The second issue is that road safety regulation for heavy vehicles is very light-handed. Regulations applying to rail freight are far more onerous, costly and rigorously enforced than regulations applying to trucks even though rail freight is a far safer mode of transport than trucks.

> *"There is a considerable difference between rail operators and road transport companies in terms of safety systems with rail operators being at best practice."*[10]

A truck driver needs a licence, a truck and a map and can drive anywhere in Australia. Conversely, rail regulation is micro-managed to a high degree which makes any form of even-handedness impossible where safety is an issue.

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10 Australian Transport Safety Bureau report QT 2459, *Rungoo level crossing inquiry 2008* (Qld), p99

THE ENVIRONMENT

The environment covers a range of issues that impact the community as a whole but are not necessarily reflected in the cost and revenue transactions directly involved in freight. Matters such as air pollution, emissions, climate change, road trauma, road congestion, fuel security, noise and even unrecovered road maintenance come into this category.

There is scant mention of environmental issues and ignores the urgency of this matter in the 2018 Plan, especially for reducing the carbon footprint, despite this purportedly being a key aim for the government.

The arguments for the transition to greater fuel efficiency now, and ultimately of freight transport as a whole shifting from diesel fuel to a 'green' substitute (for example, hydrogen or hydrogen generated electricity), have been cogently made by Twiggy Forrest in a recent ABC program[11] and by Alan Finkle in a recent Quarterly essay[12] . This paper argues that getting more trucks off the road ("more freight on rail") is vital to reduce the state's carbon footprint, but that the longer-term shift in the type of fuel used also needs recognition.

The failure to complete the Murray Basin Rail Project has actually ***increased*** the number of trucks on roads by increasing the cost of rail transport arising from the long and slow route (via Avoca and Ararat) now taken by freight trains. As a direct result this season, over 60% of the grain delivered to Geelong Grain Terminal has been by road – a traffic that is well suited to rail and, in normal circumstances, should be 75% on rail.

The 2020 ARA (Australasian Railway Association) Value of Rail report summed up the environmental benefits of rail freight as follows:

- Safety benefits from reduced road accident costs - Road accident costs are 20 times higher on road than rail for every tonne-kilometre of freight moved.
- Health benefits from reduced air pollution - rail freight generates 92% less PM10[13] than road freight for each tonne kilometre of freight moved.

The operation of heavy trucks on public roads is essential in a modern economy but comes with appreciable costs to the wider community. The New South Wales Independent Pricing and Regulatory Tribunal in its 2012 Review of Access Pricing discussed these costs for the NSW Rail Grain Network. These costs are noise, air pollution, emissions, road crashes and road congestion as well as an allowance for unrecovered road system costs from articulated trucks of one cent per net tonne-kilometre (c/tkm). Overall, for every 1% of the national freight task that moves to rail, there are benefits to society of around $72 million a year. These external costs, although they do not appear in commercial transactions, are real costs affecting real people.

The higher costs for road freight in part reflect, that for comparable freight tasks, rail uses one-third of the diesel that trucks do per tonne of freight transported with one-third of the emissions, even despite the age of much of the locomotive fleet. Rail freight can play a major role in the State's objective of net zero emissions by 2050. Rectifying this omission in the Plan is an opportunity that should not be missed.

On the national scene, reducing demand for diesel is a National Security issue. However, Victoria could start to fulfil its obligations to reduce Australia's carbon emission freight transport footprint. A commitment by the

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[11] Forrest, A. (2021). 24 Jan 2021, Oil vs Water — Confessions of a carbon emitter. Australia, Australian Broadcasting Corporation, Radio National, https://www.youtube.com/watch?v=GwfS3A_IXYc

[12] Finkle, A. (2021). Getting to Zero - Australia's Energy Transition. *The Quarterly*. Melbourne, Black Ink. QE81**:** 103pp.

[13] PM10 particles are a common air pollutant. PM10 particles are very small particles found in dust and smoke. They have a diameter of 10 micrometres (0.01 mm) or smaller.

Victorian Government to transition from diesel to an eco-friendly power source would send a strong signal to the Victorian people, to Australians in general and particularly to the Australian Government. This would represent a tangible, real and significant community benefit in terms of clean air, amenity, road safety and social equity.

RFI COMMENTARY ON RAIL-RELATED SHORT TERM PRIORITIES AND ACTIONS IN THE VICTORIAN FREIGHT PLAN

RFI comments in this table reflect the perceptions of our organisation and that of wider industry regarding the status of each item. We've highlighted this by colour coding – Green for evident progress since 2018, orange for some evident progress and red for no evident progress. It is emphasised that this assessment is our own and may not reflect actual progress within DoT or Freight Victoria.

Principal Actions	Short Term Proposals	RFI Comments	
Priority 1: Manage existing and proposed freight corridors and places in conjunction with urban form changes			
Review and enhance the Principal Freight Network	Reserve land for the locations of Victoria's new interstate intermodal terminals – the WIFT at Truganina and the BIFT, and their connecting transport corridors. Include these land reservations in the new PFN. Prepare a business case for the development of WIFT. Subject to the business case outcome, develop WIFT.	RFI's understanding is that land for the proposed WIFT and BIFT interstate intermodal terminals is yet to be formally reserved. However, the transport connection to the WIFT terminal is proposed to be by means of the Outer Metropolitan Ring (OMR) which is reserved and protected under the relevant Planning Schemes. RFI supports the early development of WIFT and urges FV to progress the business case and formal reservation of the site as soon as possible.	
	Protect Webb Dock and the existing and new transport corridor connections to the port under the new PFN.	It is understood that FV has work in hand to confirm a new rail corridor to Webb Dock. This needs to be locked into the relevant Planning Scheme.	
Expand the HPFV network	Consider rail in the freight task when assessing the requirements for upgrading the HPFV network.	More and more permits are being issued for A Double and similar very large vehicles to operate on Victorian roads without any apparent consideration as to potential rail alternatives. These vehicles are highly competitive with rail and, if continued unchecked without corresponding action to improve rail reliability and productivity, is likely to result in the progressive demise of regional rail freight services.	
Plan for bigger vehicles and vessels	Reach agreement with industry on a desired 'future state' for road and rail vehicles. Develop minimum design standards, based on the desired future state, to apply for future transport infrastructure projects.	Work has progressed through RISSB on rail vehicle design standards however we are unaware of any involvement of FV in this regard. No evident progress on axle load improvements on the Victorian freight-only network.	
Priority 2: Reduce the impact of congestion on supply chain costs and communities			
Improve landside efficiency around the PoM	Undertake the necessary land use and transport network planning and protect the former Melbourne Market and South Dynon precincts for port and urban freight related uses for the long term.	RFI is aware that some planning work has been undertaken in relation to future rail and port requirements in this area however is concerned that competition for use of part of the South Dynon area is coming from V/Line for passenger train stabling and maintenance. RFI considers that the area should be wholly reserved for rail freight and port requirements.	
	Support port rail shuttles and the Port's efforts to develop on-dock rail terminals for Swanson Dock stevedores	RFI is aware that funding has been allocated for connections to port/rail shuttle terminals at Altona, Somerton and Dandenong South and that work to develop a port/rail shuttle terminal at Swanson Dock East has been funded and will shortly commence.	
	Monitor the landside performance of all participants (including stevedores) in the road and rail-based container supply chain.	RFI is unaware of any progress in the Freight Plan in this regard although it is acknowledged that the ACCC does monitor the efficiency of stevedores and truck operators	

Priority 3: Better use of our rail freight assets			
Improve the efficiency and reduce the cost of rail access to the Port of Melbourne	Support port rail shuttles and the Port's efforts to develop on-dock rail terminals for Swanson Dock stevedores by 2022.	After many years delay it seems that serious progress is occurring in this regard. Also see item above.	
	Extend the Mode Shift Incentive Scheme (MSIS) for 12 months to 30 June 2019 to minimise the cost impact of the additional road leg at Swanson Dock	We understand that the MSIS has been consecutively extended to 30 June in 2019, 2020, 2021 and now until 2022. A more permanent support mechanism would be desirable.	
Manage the regional below-rail infrastructure and operating rules for the benefit of all users – freight and passenger	Complete a study considering the costs and benefits of upgrading and/ or standardising further corridors on the regional rail network, noting that standardisation will ultimately need to be considered in the context of the passenger network on some lines as well.	This should form part of an overall rail network plan embodying both the regional passenger and freight-only lines, with gauge considerations a key component. However, RFI is unaware of any progress in this regard.	
	Review current freight rail operations and infrastructure to identify opportunities for improving the efficiency of the network for operators, and ultimately for primary producers and other users. Implement a series of short-term improvements arising from the review.	Several short term works are acknowledged including Maryvale siding and Sea Lake maintenance catch-up. Further MBRP works approved include Tourello Loop and track extensions at Donald and Merbein. Potential exists for further improvements to be identified.	
	Develop and publish an Asset Management Plan for the regional freight network which will form the basis of an annual major maintenance program for the network. The annual maintenance program will include an allowance for achieving the required 'future state' for the rail network by 2050.	RFI is unaware of any action in this regard	
	Advocate to the Commonwealth to invest in freight rail infrastructure in Victoria, starting with the Portland – Maroona line.	As above. This is strongly supported and should be progressed ASAP.	
	Capture opportunities in regional Victoria to enable new and existing industries to benefit from the increased port and rail competition.	Through our contacts in local government RFI is aware of various proposals the Government is considering.	
	Complete the $440m Murray Basin Rail Project and actively facilitate new user access and related investments on the corridor.	The MBRP has been truncated at around 50% complete leaving standardisation still to be completed between Maryborough, Ballarat and Gheringhap and on the Sea Lake and Manangatang lines.	
	Complete the $10m Shepparton Freight Rail Network Planning and identify infrastructure improvements to maintain and enhance freight capacity on this corridor. Implement improvements.	RFI acknowledges the Shepparton Line Upgrade project and the extension of the Murchison East crossing loop but has not seen any outcomes from the Shepparton line freight study.	
	Complete delivery of the Freight-Passenger Rail Separation Project in the Ballarat, Maryborough and Ararat area.	This project did not proceed as it was effectively an add-on to the MBRP in the Ballarat area.	
	Take advantage of opportunities presented by Inland Rail.	Inland Rail appears to be an impetus for driving business case work on the OMR, WIFT and BIFT.	
Priority 4: Plan for Victoria's future port capacity			
Plan for Bay West as Victoria's second container port whilst retaining the Port of Hastings as an option in reserve	Further investigate the feasibility of Bay West as a container port including: • Determining the location of the port site at Bay West • Identifying preferred land transport corridors and the required land area • Commence a baseline environmental program for the Bay West port site	RFI is unaware of any specific initiatives in this regard.	

	• Monitor key indicators to inform future decisions such as the size of container vessels		
Priority 5: Stay ahead of the technology curve			
Give priority to new technologies which enhance safety on our roads and rail; optimise the metropolitan road network and better manage congestion; and reduce supply chain costs	Provide incentives for road and rail freight operators to take advantage of technologies that have a proven safety benefit such as automatic train control, automatic emergency braking systems…	RFI is unaware of any specific initiatives in this regard.	
Invest in better, more reliable freight data	Collect freight and logistic system user views as part of a review every two years of Victoria's freight and logistics performance.	RFI is unaware of any specific initiatives in this regard.	
	Measure, monitor and report on the performance of regional freight rail in Victoria including reliability, network availability, transit time, temporary speed restrictions, track condition and unit cost.	As above.	
	Measure, monitor and report on container origins and destinations via a study every five years in conjunction with the Port of Melbourne.	RFI is aware of the current study of container origins and destinations being undertaken by the Port of Melbourne which will update the last data obtained in 2009.	
	Measure, monitor and report on the land-side performance of all participants in the import/export container supply chain.	RFI is unaware of any specific initiatives in this regard.	