Rail Futures Institute

Response to NSW Freight Policy Reform: Interim Directions

October 2024

Summary

This submission has been prepared by Rail Futures Institute Incorporated in the public interest. Rail Futures Institute (RFI) is an independent non-partisan group formed 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, engineers and economists.

This submission is consistent with our submission to the April 2024 NSW Freight Policy Reform Consultation Paper.

We appreciate the further consultation and some of the approaches taken in the Interim Report. These include planning for a Western Sydney Freight line and recognition of external costs along with scope for user-pays and polluter-pays charges.

The approach for developing actions for now and near term; medium term (by 2030); and longer-term (by 2040) is helpful.

So also is the division of issues into two parts:

> **Part 1:** Industry wide framework matters that apply across the freight system and are relevant to all modes. This includes the long-standing vexed issue of adequate and timely data.
>
> **Part 2:** Network matters focusing on the connected freight networks with specific consideration to coordination between different elements such as ports, rail and road.

However, RFI is very concerned that the Interim Report appears to favour further increases in heavy truck mass and dimension limits, whilst not giving enough attention to improving rail freight productivity. Here, we recommend attention to a national standard for mainline rail track.

The Interim Report also omits any reference to specific measures to improve the competitiveness of rail freight through selective investment in rail infrastructure enhancement and to possible mode shift incentive schemes. This is despite both issues being raised in submissions of others and ourselves. A further concern is the suggested closure of some regional branch lines.

Our submission will also highlight some of the wider benefits of modal shift of freight. These include but are not limited to reduction in emissions. This is due to the fact that on tonne-kilometre basis for many freight

movements, rail is three times more energy efficient than road. Any calls for the

1. A question of balance

The report notes that *"Even with increasing modal shift to rail as the volume of freight continues to increase, it is imperative that the road network be improved to minimise the impact of heavy vehicles on the community, to reduce congestion, minimise tailpipe emissions and reduce the safety risk posed by reducing the number of interactions with heavy vehicles on the road network."*

However, we were unable to find a corresponding statement that it is *"imperative that the rail network be improved".*

2. National Service Level Standards for rail

We note that the Interim Report in Section 2.2 *National Service Level Standards for Roads*, notes, inter alia, that in 2018, the National Transport and Infrastructure Ministers agreed to develop nationally consistent service level standards for all roads. A national framework has since been built.

RFI would like to see NSW support for National Service Level Standards for Rail. A good starting place would be the Australian Transport Council of Ministers agreement in 1997 to certain measures to make *"...dramatic improvements in the performance of interstate rail."* This was to overcome the situation where rail had (and still has) *"...failed to compete effectively with road transport".*

The Ministers then affirmed Australia needed "*a vigorous interstate rail system that ... is genuinely competitive with road transport*...", agreeing the interstate network should provide the following levels of service within five years:

- less than 2% of track subject to temporary speed restrictions;
- at axle loads up to 21 tonnes, a maximum speed of 115km/h and an average speed of 80 km/h (kilometres per hour); and
- at axle loads between 21 and 25 tonnes a maximum speed of 80km/h and average speed of 60km/h.

It was also agreed that in the longer term the system should deliver:

- at axle loads up to 21 tonnes, a maximum speed of 125 km/h and an average speed of 100km/h; and
- at axle loads between 21 and 25 tonnes a maximum speed of 100 km/h and an average speed of 80 km/h,

along with increased clearances to allow double stacking of containers.

These average speeds are still unattainable on the Main South corridor.

The interim report also fails to mention temporary speed restrictions (TSRs), even though these have been an issue adversely affecting interstate rail freight.

ARTC is working its way through these TSRs. Yet, a mid-September 2024 ARTC *"Speed Restriction Notice"* notes almost 100 TSRs between Macarthur and Albury. It is of concern that the ARTC 2024 NSW Lease Annual Condition Report 2023-24 advises that *"the rail age and wear on the North Coast and South is reaching end of life in numerous locations and inherently the number of fatigue related defects increases as rail ages."* This is likely to lead to more TSRs.

Of equal concern is the number of permanent speed restrictions that slow freight (and passenger) trains down. Several submissions, including our own, suggested a number of deviations on the Main South Line with a preference for from near Macarthur to Mittagong to be a priority. As discussed above, we were disappointed to see no reference to this in the Interim Report, and request that it be noted as an option in the Final Report. Reference could well be made to any potential interest in such a deviation by the new High Speed Rail Authority.

RFI requests that the Panel support the near term development of National Standards for Rail and note the earlier interim goal of the Australian Transport Council in the Final Report.

3. Impediments to increasing rail's modal share of freight

In Section 9 on page 29 of the Interim Report, it is noted that *"The rail network has not enabled long held aspirations to greatly increase the movement of goods by rail to be realised. The factors contributing to this outcome are varied and include:*

- *planning and prioritisation*
- *regulatory settings*
- *service offering*
- *lack of coordination.*

It is submitted that the relative quality of infrastructure (e.g. modern highways vs interstate and intercity track on old alignments with severe curvature) along with high rail track access fees and low road truck user fees (including discounted fuel excise and no mass/distance charging for high performance road vehicles) are material and should be included.

- Other relevant factors include rail freight having constrained rail capacity arising from ‘passenger priority’ policy.
- Track Access complexity – multiple providers statewide and vertical integration within the Sydney Trains domain.

As noted by Fastrack in their primary submission, “*Unfortunately, rail has received much less investment* [than motorways] *despite some improvements such as the Southern Sydney Freight line and improvements to the Port Botany line. The current rail corridors out of Sydney to the north, south-west, west and Illawarra remain limited by 19th century alignments with steep grades and tight curves, and with increased competition from passenger rail traffic.”*

4. Benefits from increasing rail’s modal share of freight

The Interim Report appears to support even larger and heavier trucks. This extends to Figure 10.1 *Benefits of PBS vehicles replacing heavy vehicles (2008 to 2022)* from a publication of the National Heavy Vehicle Regulator, *“Performance Based Standards. Removing Roadblocks to Reform” (2024).*

As noted by the Australasian Railway Association (ARA) in its submission, *“The NSW Government, along with the federal and other state governments, have long held an explicit public policy objective to increase the share of the large and rapidly growing freight task which is transported by rail.”*

The ARA goes on to note that *“A 1% modal shift away from road to rail, ……. would result in reduction in emissions nationally of 330,150 tonnes of CO2 equivalent.”*

It then notes, *“Road accident costs are 20 times higher than rail for every tkm of freight moved.”* Based on ARA analysis, the annual total crash costs for road freight in Australia is estimated to be over $3,000 million compared to the $282 million for rail freight. *“A 1% shift away from road to rail would reduce accident costs nationally by $28.6 million per year.”*

It also notes transport is one of the main contributors to air pollution in dense cities, resulting in negative health outcomes. *"Particulate matter causes breathing difficulties and exacerbates respiratory diseases, ultimately leading to lower quality of life and reduced lifespans…. A 1% modal shift away from road would result in reduction in health costs caused by PM10 emissions nationally by $20.5 million annually."*

Just a 1% modal shift away from road to rail would:

- **Reduce carbon emissions nationally by 330,150 tonnes**
- **Reduce road accident costs nationally by $28.6 million**
- **Reduce health costs caused by PM10 emissions by $20.5m annually**

The ARA submission then makes the Recommendation: *"Reinstate a NSW Government goal of 30% of contestable freight volumes being moved throughout the state on rail, as a total proportion of volume in transit, as a feature of the updated policy and develop specific actions to achieve it."*

RFI commends this recommendation to the Panel.

5. Another estimate of benefits of some mode shift

The BITRE report[1] at Table 4.2a Total domestic freight, by state/territory, by transport mode – road notes the NSW road freight task at an estimated 83.7 billion tonne kilometres.

If it is assumed that 15 per cent (about 12.5 billion tonne km) of this road freight task is contestable by rail and was to move to rail, an estimate of the benefits can be made. For this we may use data given in our primary submission as follows "The New South Wales Independent Pricing and Regulatory Tribunal (IPART) in its 2012 *Review of Access Pricing for the NSW Grain Line Network* gave values for external costs for road and rail freight in both urban and non-urban areas. These included estimates with an allowance for unrecovered road system costs from trucks, accident costs, air pollution, noise, emissions and road congestion, in cents per net tonne kilometre (ntkm), as follows:

- 2.75 cents per ntkm for road haulage in urban areas
- 1.98 cents per ntkm for road haulage in non-urban areas
- 0.43 cents per ntkm for rail haulage in urban areas, and,
- 0.17 cents per ntkm for rail haulage in non-urban areas.

[1] https://www.bitre.gov.au/publications/2023/australian-infrastructure-and-transport-statistics-yearbook-2023

These externality costs, if escalated by CPI, would now be appreciably higher by a factor of around +30%"

If we assume a 50-50 split between urban and non-urban areas, and escalate by 30%, we get about 3 cents per net tonne km for road freight and about 0.4 cents per net tonne km for rail freight.

Applying this to 12.5 btkm of road freight, there would be a reduction in external costs of about $375 million per year. This is offset by an increase in rail freight external costs of $50 million a year.

The reduction of road freight by 12.5 btkm would reduce net road maintenance costs by over $125 million a year. It would also reduce road trauma costs by at least $90 million a year.

Plus it would appreciably reduce carbon dioxide emissions. Earlier SMVU data suggests articulated trucks with an energy efficiency of 37.8 tkm per litre of diesel. Assuming this as a broad estimate, a 12.5 btkm freight task would require the use of 330m litres of diesel.

If an (easily contestable) 15% of the current NSW road freight task were to move to rail it would:

- **Reduce external costs (road maintenance, accidents, air pollution, noise, congestion) by a net $325 million per year**
- **Reduce net road maintenance costs by over $125 million per year**
- **Reduce road trauma costs by at least $90 million per year**
- **Save 220 million litres of diesel fuel yearly**
- **Reduce around 890,000 tonnes of CO2 emissions per year**

If diverted to rail, the use of diesel would have been 110m litres of diesel, a saving of 220m litres of diesel. At some 2.7 kg of CO2 released per litre of diesel combusted, this would mean a reduction of about 890,000 tonnes of CO2.

RFI would welcome, if not a graph to complement one presenting a case for even larger and heavier trucks, inclusion of data to show the benefits of a modal shift from road to rail.

6. Improvements to the Main South Line

The Main South Line gets a brief mention on page 39 of the Interim Report in 6.1 Key areas of vulnerability. *"The Main South Line was rated 'medium risk' also due to the lack of alternative freight options."*

As per our primary submission, RFI noted that *"a window of opportunity exists to plan and reserve land for significant upgrades to the main Southern line between Menangle and the Wallendbeen/Cootamundra area. Successively, this should comprise the Wentworth deviation between Menangle and Mittagong, the Centennial deviation between*

Breadalbane and Yass and the Hoare deviation between Bowning and near Cootamundra or (in the context of Inland Rail) to near Stockinbingal."

The total distance of these three deviations would be around 190 km and take 60 km off the existing route distance. With much higher average speeds achievable, freight train transit times would fall by two hours along with reduced crew costs, fuel usage and emissions. Passenger train time savings would also be significant. Commensurate reduction in infrastructure maintenance costs would result along with enhanced operator cost competitiveness.

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- Allow much higher average train speeds
- Reduce Melbourne-Sydney freight train transit time by 2 hours
- Improve rail productivity by reducing crewing and fuel costs
- Reduce carbon emissions
- Allow significant passenger train time savings
- Pave the way for future fast passenger trains

These investments would be a game-changer for rail competitiveness on this vital corridor. Urgent action is needed to reserve the land now in the face of rapid urban expansion.

For the first of these deviations, an urgent need exists to secure the 48 km corridor between Menangle and Mittagong (the Wentworth deviation) in the face of rapid urban encroachment around Appin and Wilton. This deviation will benefit all rail users, freight and passenger, between Sydney, Melbourne, Canberra and the Southern Highlands, also Sydney-Perth freight trains which operate via Cootamundra. Design standards for these deviations on the Main South Line should be configured for double stack container operation as well as standards required in future for fast or very fast trains.

While the Main South Line forms part of the Defined Interstate Rail Network, its predominant traffic, both passenger and freight, particularly between Sydney and Goulburn, is intrastate.

Hence, while RFI acknowledges the primary responsibility for upgrading the Main South Line lies with the Commonwealth, we believe that New South Wales will also be a significant beneficiary of such improvements. As such, the State has an important role in advocating for, and facilitating, these projects.

RFI would like to see the Final Report at least acknowledge the potential for improved rail competitiveness from the Main South deviations, with particular reference to initially securing the corridor between Menangle and Mittagong.

7. Closing of branch lines

The proposal to rationalise low traffic seasonal grain lines or disused seasonal grain lines does not appear to take account of the extent of grain facility rationalisation which has already taken place over recent decades. Nor does it appear to consider the inevitable alternative of more and heavier trucks on regional roads resulting in higher overall greenhouse gas emissions, greater regional road damage, and greater road accident risk to other motorists.

We also draw attention to comments made by Farmers NSW in The Land, 26 September 2024, page 23, *Better freight needed in the state:*

> *"In NSW, we have more rail lines that don't work than ones that do. More than 3000 kilometres of non-operational railway line lays silent and obsolete across our state's landscape.*
>
> *And we are forced to use road trains, not rail, to transport almost 90 per cent of the food and fibre we produce here in NSW.*
>
> *The pressure this puts on our crumbling rural roads and bridges is relentless, and the inefficiencies are staggering. This grain harvest will be just another reminder of how sub-standard our rail lines really are."*

In the NSW context, the rail grain only network needs to be considered in full recognition of the inherent variability of the export grain task. This includes grain producing regions where there are currently large gaps between existing open rail freight lines. The fact that some grain lines only handle substantial tonnages in better seasons should not necessarily disqualify such lines from being retained. It comes down to a trade-off between the average cost of maintaining such lines and the added cost of road damage and other externalities (as mentioned above) when the railway is no longer available.

Where grain growers are forced to undertake even longer hauls to reach the closest or most efficient grain receival facilities when their nearer rail receival location becomes unavailable, they or their haulage contractors are inclined to permanently bypass rail after making large investments in high capacity truck combinations. Loss of this grain task can adversely affect the viability of trunk lines on the grain network.

As proposed in the Interim Report, this needs to be jointly reviewed in a wider context especially in respect of Victorian lines (both broad and standard gauge) extending over the border into NSW to Moulamein, Deniliquin, Tocumwal and Oaklands.

Further, the potential re-activation of the Tocumwal - Narrandera line coupled with standardisation of the Tocumwal - Mangalore line should be

considered (by NSW and Victoria and by ARTC from a national network context). This would create a considerably more direct rail freight route from the highly productive Griffith/Riverina area of NSW to the ports of Melbourne and Geelong, and in developing new business opportunities southward from the same areas and from centres between Narrandera and Tocumwal.

Similar considerations will apply to the Queensland side when Inland Rail starts to penetrate grain growing areas in that State's south-west.

8. Mode shift incentive schemes

In our submission we observed that Fremantle in Western Australia is reported as having the highest share of port containers on rail. It is no coincidence that Western Australia has an incentive scheme that passes some of the benefits of reducing truck movements to port back to shippers. A sensible incentive for containers moved on rail based on community cost savings might be a 'no net cost' way of encouraging the appropriate shipper behaviour for the benefit of the city as a whole. 'Container to port on rail incentives' can be good value as well as good policy.

We then recommended consideration of a payment scheme, at a level and duration to be determined, to get more containers going into and out of Port Botany onto rail, to meet an assigned target.

Although the Interim Report gives much attention to Port Botany, it was disappointing to see no mention of at least considering a container mode shift scheme to get rail moving more containers to and from Port Botany, especially in relation to short hauls from metropolitan hub terminals.

We agree with the observation of the Australasian Railway Association in its submission that "*Government incentive schemes to promote efficient mode utilisation may be appropriate in local instances to encourage a mode shift and/or to address a discrete policy objective, and are most effective when used as a transitional measure until the full benefits of longer term strategies to promote rail productivity are realised…"*

We now note that The Victorian Mode Shift Incentive Scheme was extended for a further two years in mid-2024 at a cost of $4 million. The scheme "*helps rail freight operators compete with road freight and allows exporters to get their goods efficiently to port. These operators play a crucial role in moving Victorian produce from the farm gate for export including meat, dairy, grain, hay, fruit, oats, beans and wine."*

Mode Shift Incentive Schemes are also justified by contributing to improved road safety, reducing road maintenance costs and by reducing

road congestion and emissions, especially within the Greater Sydney Region.

RFI would like to see the Final Report acknowledge the potential benefits of an appropriately targeted mode shift incentive scheme. We consider this will be essential to achieve the previous target for rail to move 28 per cent of all containers in and out of Port Botany.

9. Maldon Dombarton

RFI was disappointed to see no reference to this long standing "missing link" in the Interim Report.

We note that it was raised in several submissions apart from our own. These include Wollongong City Council, an official submission from the University of Wollongong Government Relations, the Western Sydney Leadership Dialogue, and Fastrack.

Our own submission noted in part, *"Completion of the 35 km Maldon to Dombarton rail link would allow removal of most freight trains from the increasingly congested Tempe to Wollongong line including the Waterfall –Thirroul section that has had relatively frequent closures due to extreme weather events."*

We note that the Australasian Railway Association in its submission states, inter alia, re advancing Maldon to Dombarton - *"There is strong support for this next step from local MPs, local Councils (Wollongong, Wollondilly, Campbelltown, Shellharbour, Shoalhaven), Business Illawarra, Business Western Sydney, the University of Wollongong, and RDA Illawarra/Shoalhaven, along with freight customers including Cement Australia, Bluescope and GrainCorp."*

Our recommendation: The NSW Government should fund a Strategic Business Case for completion of the partially constructed 35 kilometre rail link between the Main South Line at Maldon and the Moss Vale-Unanderra Line at Dombarton (Maldon-Dombarton line) which fully investigates all the potential benefits of a dual purpose rail line."

RFI trusts that the final report can address the Maldon-Dombarton issue in a positive manner.

10. Rail questions

The Interim Report raises the following matters for further consultation. Our responses follow:

(i). Issues impacting rail freight are varied and wide-ranging. Is there anything critical missing from the actions and directions above that will inhibit rail modal shift?

RFI response: Please see the comments throughout the submission above.

(ii). Are there particular performance measures that you consider appropriate for the rail network managers, rail infrastructure providers or rail freight operators?

RFI response:

- Performance measures for track quality should be applied and reported as per the above submission with an ongoing target of less than 2% of track subject to Temporary Speed Restrictions; and
- On the Main South corridor, at axle loads up to 21 tonnes, a maximum speed of 115km/h and an average speed of 80 km/h (kilometres per hour) with actual performance of nominated trains in each direction measured and reported against the 80 km/h average speed target between Goulburn and Albury.

RFI would also like to see reinstatement of targets and regular reporting for mode shares of containers to and from Port Botany.

(iii). Are there matters relating to implementation of the proposed actions and directions you would like the Panel to consider before finalising the recommended approach to addressing rail network issues?

RFI response:

This submission has raised a number of items for which we would appreciate further attention by the Panel. The key items are:

- Lack of balance between calls for road improvements for heavy vehicles relative to the absence of calls for long overdue rail infrastructure improvements.
- Need for agreed service level standards for main rail lines.
- Lack of recognition of benefits from increasing rail's modal share of contestable freight.
- No consideration of the benefits of enhancements to the Main South railway by way of specific deviations to overcome steam-age alignments and severe curvature that impact rail service and competitiveness.

- No consideration of the benefits of completing the Maldon-Dombarton “missing rail link”.
- No consideration of potential Mode Shift Incentive Schemes.

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President Rail Futures Institute

18 October 2024