



PERFORMANCE AUDIT

19 OCTOBER 2021

# Rail freight and Greater Sydney

NEW SOUTH WALES AUDITOR-GENERAL'S REPORT

# THE ROLE OF THE AUDITOR-GENERAL

The roles and responsibilities of the Auditor-General, and hence the Audit Office, are set out in the *Government Sector Audit Act 1983* and the *Local Government Act 1993*.

We conduct financial or 'attest' audits of state public sector and local government entities' financial statements. We also audit the Consolidated State Financial Statements, a consolidation of all state public sector agencies' financial statements.

Financial audits are designed to add credibility to financial statements, enhancing their value to end-users. Also, the existence of such audits provides a constant stimulus to entities to ensure sound financial management.

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In accordance with section 38E of the *Government Sector Audit Act 1983*, I present a report titled '**Rail freight and Greater Sydney**'.

A handwritten signature in black ink, appearing to read 'Margaret Crawford'.

**Margaret Crawford**  
Auditor-General for New South Wales  
19 October 2021

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## **Section one**

Rail freight and Greater  
Sydney

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# Executive summary

The movement of freight contributes \$66.0 billion annually to the New South Wales economy — or 13 per cent of the Gross State Product. Two thirds of all freight in New South Wales moves through Greater Sydney, and the volume of freight moving through Greater Sydney is expected to increase by 48 per cent by 2036. This increasing demand is driven by increasing population and economic growth.

The sequence of activities required to move goods from their point of origin to the eventual consumer (the supply chain) is what matters most to shippers and consumers. Road can provide a single-mode door-to-door service, whereas conveying goods by rail typically involves moving freight onto road at some point. In Greater Sydney, 80 per cent of all freight is moved on road. Freight often passes through intermodal terminals (IMTs) as it transitions from one mode of transport to the next.

In 2016, Transport for NSW (TfNSW) released Future Transport 2056 - the NSW Government's 40-year vision for transport in New South Wales, which is intended to guide investment over the longer term. In Future Transport 2056, TfNSW noted that New South Wales will struggle to meet increasing demand for freight movements unless rail plays a larger role in the movement of freight.

Sydney Trains manages the metropolitan shared rail network, which is made up of rail lines that are used by both passenger and freight trains. The *Transport Administration Act 1988* requires that, for the purposes of network control and timetabling, NSW Government transport agencies give 'reasonable priority' to passenger trains on shared lines. As the Greater Sydney population and rail patronage continue to grow, so too will competition for access to the shared rail network. See Appendix two for details of the area encompassed by Greater Sydney.

Freight operators can also use dedicated rail freight lines operated by the Australian Rail Track Corporation (ARTC - an Australian Government statutory-owned corporation). As the metropolitan shared rail network connects with dedicated freight lines, freight operators often use both to complete a journey.

TfNSW, Sydney Trains and the Transport Asset Holding Entity (TAHE) work in conjunction with other rail infrastructure owners and private sector entities, including port operators, privately operated IMTs and freight-shipping companies. TfNSW and Sydney Trains are responsible for managing the movement of freight across the metropolitan shared rail network. TAHE is the owner of the rail infrastructure that makes up the metropolitan shared rail network. The NSW Government established TAHE, a NSW Government state-owned corporation, on 1 July 2020 to replace the former rail infrastructure owner - RailCorp. The Auditor-General for New South Wales has commenced a performance audit on TAHE which is expected to table in 2022.

On 1 July 2021, TAHE entered into new agreements with TfNSW and Sydney Trains to operate, manage and maintain the metropolitan shared rail network. Until 30 June 2021, and in accordance with TAHE's Implementation Deed, TAHE operated under the terms of RailCorp's existing arrangements and agreements.

This audit assessed the effectiveness of TfNSW, Sydney Trains and TAHE in improving the use of rail freight capacity in Greater Sydney, and to meet current and future freight demand.

The audit focused on:

- the monitoring of access to shared rail lines
- the management of avoidable delays of rail freight movements
- steps to increase the use of rail freight capacity in Greater Sydney.



## Conclusion

**Transport agencies do not have clear strategies or targets in place to improve the freight efficiency or capacity of the metropolitan shared rail network. They also do not know how to make best use of the rail network to achieve the efficient use of its rail freight capacity. These factors expose the risk that rail freight capacity will not meet anticipated increases in freight demand.**

Future Transport 2056 notes that opportunities exist to shift more freight onto rail, and that making this change remains an important priority for the NSW Government. However, the transport agencies acknowledge that they do not have sufficient information to achieve the most efficient freight outcomes. In particular, transport agencies do not know how to use the shared rail network in a way that maximises freight capacity without compromising passenger rail services.

Neither Future Transport 2056 nor the Freight and Ports Plan 2018–2023 give any guidance on how transport agencies will improve the efficiency or capacity of the shared rail network. Other than a target for rail freight movements to and from Port Botany, which TfNSW's data indicates will not be met, there are no targets for improving rail freight capacity across the shared network. The lack of specific strategies, objectives and targets reduces accountability and makes it difficult for transport agencies to effectively improve the use of rail freight capacity in line with their commitment to do so.

**Sydney Trains and Transport for NSW do not effectively use data to improve rail freight performance and capacity**

To drive performance improvement when planning for the future, transport agencies need good quality data on freight management and movements. Sydney Trains records data on train movements in real-time and collects some data on delays and incidents. TfNSW collects data for the construction of the Standard Working Timetable (SWTT) and third-party contracts. However, the different types of data gathered and the separation between the teams responsible mean that there is a lack of clarity around what data is gathered and who has ownership of it. This lack of coordination prevents best use of the data to develop a single picture of how well the network is operating or how performance could be improved.

Sydney Trains' ability to evaluate the effectiveness of its incident and delay mitigation strategies is also limited by a lack of information on its management of rail-freight related delays or incidents. While Sydney Trains collects data on major incidents, it can only use this to conduct event-specific analysis on the causes of an incident, and to review the operational and management response. The use of complete and accurate incident data would assist to define, identify and reduce avoidable delays. Reducing avoidable delays is a goal of the Freight and Ports Plan 2018–2023. More complete data on all incidents would help TfNSW to have more effective performance discussions with rail freight operators to help improve performance.

**TfNSW has started developing strategies to identify how it can use rail freight capacity to achieve efficient freight outcomes, but it has not committed to implementation timeframes for this work.**

TfNSW's Freight Branch has started work on four freight-specific strategies to improve freight efficiency: a review of the Plan, a freight rail strategy, a port efficiency strategy and a freight data strategy. However, none of these strategies will be fully developed before the end of 2022. TfNSW has not yet determined the implementation timeframes or intended outcomes of these strategies, although TfNSW reports that it is taking an iterative approach and some recommendations and initiatives will be developed during 2022.

## 1. Key findings

**Transport agencies do not have specific strategies or targets to improve the use of rail freight capacity on the metropolitan shared rail network**

In 2016, TfNSW released Future Transport 2056, the overarching policy for the development of transport in New South Wales. Future Transport 2056 details a 40-year vision, direction and principles for transport in New South Wales and is intended to guide investment over the longer term. Future Transport 2056 notes the need to increase rail freight to accommodate predicted increases in demand for freight movement and, specifically, notes that metropolitan transport networks in New South Wales will need to carry double the current volume of freight by 2056.

The Freight and Ports Plan 2018–2023 (the Plan) is a supporting plan for Future Transport 2056. TfNSW's long-term priority, as described in the Plan, is to provide greater separation of passenger and freight movement on the rail network to increase freight capacity and improve safety. The Plan notes that freight efficiencies could be improved if some of the commodities currently carried on roads were shifted to rail or coastal shipping.

Future Transport 2056 and the Plan both note the need to increase rail freight capacity, but the Plan only contains a commitment to 'maintain the number of train paths required by freight within the shared metropolitan rail network'.

Despite these strategic objectives, transport agencies do not have freight-specific strategies to improve the efficiency or capacity of the metropolitan shared rail network. Future Transport 2056 does not contain any explicit targets for increasing the use of rail freight capacity on the metropolitan shared rail network. The Plan contains one target related to rail freight capacity — increasing the use of rail for freight movements to and from Port Botany from 17.5 per cent in 2016 to 28 per cent by 2021. However, TfNSW's data indicates that this target will not be met and our analysis supports this conclusion.

The transport agencies acknowledge that they do not know how to use the rail network to achieve the most efficient use of rail freight capacity. Furthermore, transport agencies acknowledge that they do not have sufficient information to achieve the most efficient freight outcomes. In particular, transport agencies do not know how to use the shared rail network in a way that maximises freight capacity without compromising passenger rail services. The lack of specific strategies and targets exposes the risk that demand for freight rail will outstrip capacity before longer-term solutions become available.

### **Sydney Trains and Transport for NSW do not use data effectively to improve rail freight performance and capacity**

Transport agencies need high quality data to drive performance improvement and meet predicted increases in demand for rail freight. TfNSW collects data for the development of the Standard Working Timetable and third-party contracts. However, the different types of data gathered and the separation between the teams that gather data means that there is a lack of clarity around what data is gathered and who has ownership of that data. This makes data-sharing difficult and limits analysis and reporting.

Sydney Trains records data on train movements in real time and collects some data on delays and incidents, which it uses to conduct event-specific analysis. This analysis focuses on the causes of an incident and reviews the operational and management response to identify lessons learned. However, Sydney Trains does not systematically collect data on its management of all rail-freight related delays or incidents. Furthermore, despite the Plan's inclusion of a section on 'Reducing avoidable rail freight delays', Sydney Trains do not classify delays as either avoidable or unavoidable.

These deficiencies limit Sydney Trains' ability to evaluate the effectiveness of its incident and delay mitigation strategies. The use of complete and accurate incident data would be a vital input to ensuring avoidable delays are identified, analysed and reduced.

### **There are no performance measures in rail freight operator contracts or inter-agency agreements, limiting transport agencies' ability to improve performance**

Third-party access to the metropolitan shared network is managed by TfNSW on behalf of TAHE. The current third-party access agreements between TfNSW and rail freight operators do not include performance metrics for either rail freight operators or the transport agencies. The contracts include limited mechanisms to improve unsatisfactory performance by rail freight operators, such as the suspension or removal of access rights. However, TfNSW staff advised that they rarely use these mechanisms to improve freight operator performance as the mechanisms could have adverse impacts on the operator, allied businesses and consumers.

TfNSW and TAHE are developing a new access agreement and intend to include performance measures. TfNSW plans to have the new agreements finalised by December 2021 and intends to negotiate these measures with each rail freight operator individually.

Since 2013, TfNSW and Sydney Trains have managed and delivered TAHE's (and previously RailCorp's) obligations under the rail access agreements. However, no regular monitoring or oversight has taken place with respect to this arrangement. TAHE advises that its oversight and assurance responsibilities are limited to those related to rail safety, although it intends to include third-party access in its internal audit program.

**TfNSW has started developing strategies to identify how it can use existing rail freight capacity to achieve efficient freight outcomes, but it has not committed to implementation timeframes**

In 2021, TfNSW's Freight Branch started several strategic projects:

- Review of the Freight and Ports Plan 2018–2023
- Freight Rail Strategy
- Port Efficiency Strategy
- Freight Data Strategy.

The review of the Plan is due to be completed by December 2021. The remaining three strategies are all in early stages of development, and none will be fully developed before the end of 2022. TfNSW has not yet determined the implementation timeframes or intended outcomes for these projects, although TfNSW reports that it is taking an iterative approach to these projects and some recommendations and initiatives will be developed during 2022. However, there is no evidence of executive accountability for the implementation of these strategic projects beyond the Freight Branch. This exposes the risk that TfNSW will not complete these projects.

The transport agencies are also developing a Gold Paths initiative designed to encourage rail operators to improve performance. This initiative will permit high performing freight rail operators to apply for access to a small number of rail paths through Greater Sydney in peak times. However, this will only be possible if the operator can demonstrate that their train does not pose a risk to the effective and efficient management of the network.

## 2. Recommendations

### **By June 2022, Transport for NSW should:**

1. commit, as part of the review of Future Transport 2056, to delivering the freight-specific strategies currently in development and develop whole-of-cluster accountability for this work including:
  - a) timeframes
  - b) targets and key performance indicators
  - c) governance arrangements, including respective roles and responsibilities.

### **By April 2022, Transport for NSW and Sydney Trains should:**

2. improve the collection and sharing of data to facilitate better analysis of train movements and to support future planning and policy decisions.
3. develop a specific plan to reduce the number of avoidable freight delays.

### **By October 2022, Sydney Trains should:**

4. systematically collect data on its management of delays to rail-freight and incidents involving and/or impacting rail-freight.

### **By April 2022, TAHE, Sydney Trains and TfNSW should:**

5. develop and implement key performance indicators for the inter-agency agreements between TAHE, TfNSW and Sydney Trains.

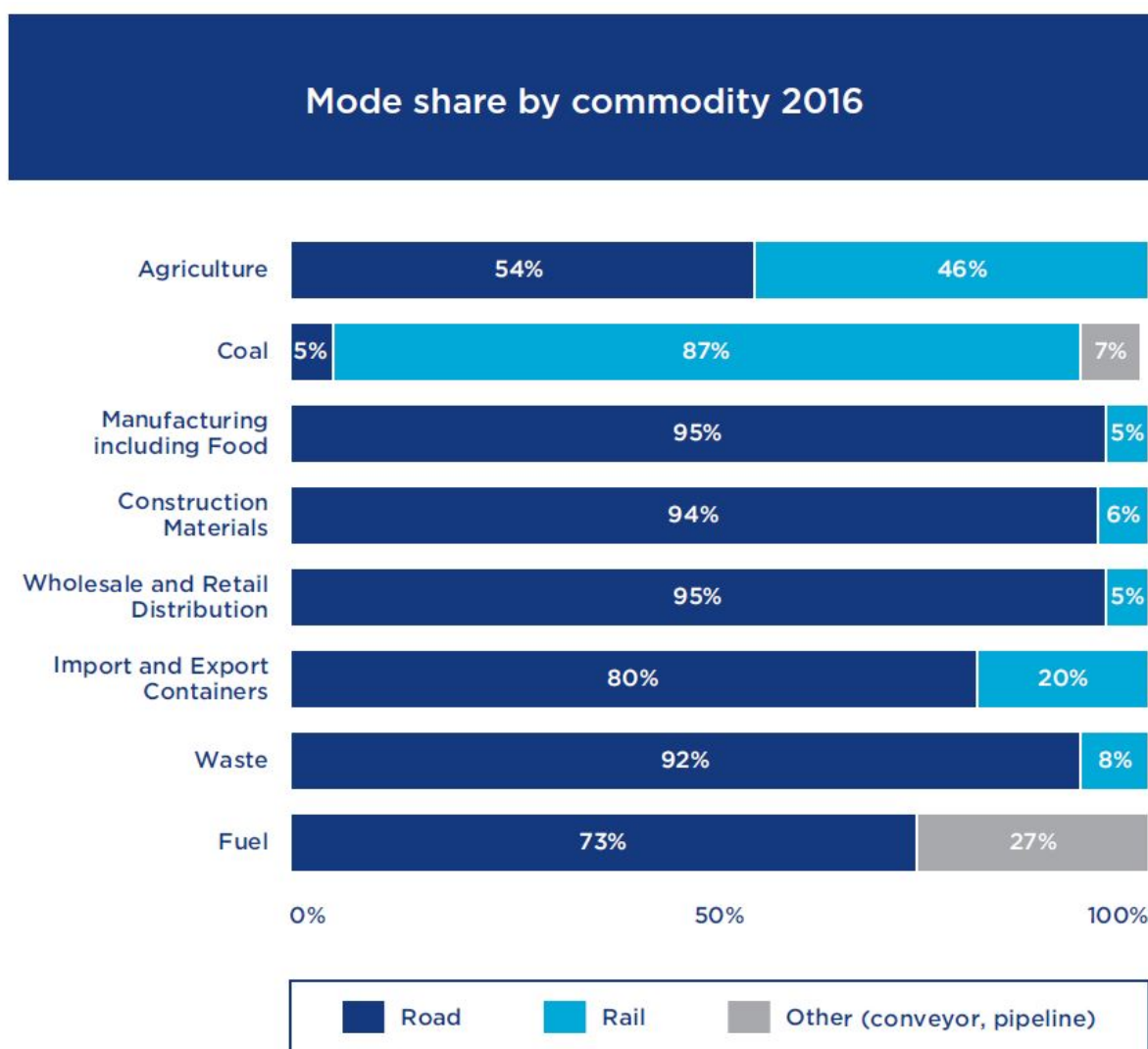


# 1. Introduction

## 1.1 Background

The movement of freight across New South Wales contributes \$66 billion annually to the economy — or 13 per cent of the Gross State Product. In 2016, 74 per cent of total freight movements were on road, 22 per cent on rail, and other means of transport carried the remaining four per cent. Exhibit 1 illustrates the breakdown of transport used for a selection of commodities.

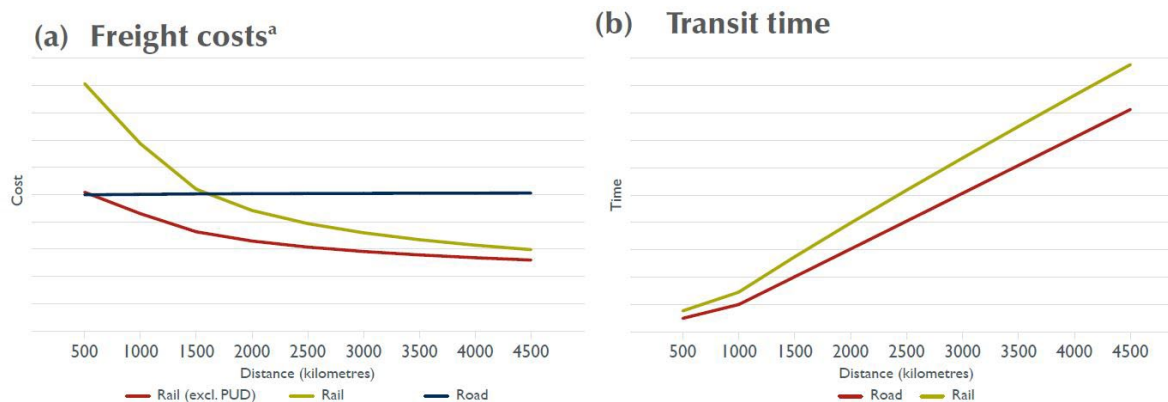
**Exhibit 1: Freight movements by transport type in New South Wales, 2016**



Source: NSW Freight and Ports Plan 2018–2023.

Rail is generally the most cost-effective way to transport high-volume commodities across longer distances. Exhibit 2 illustrates the comparison between average costs and times for road and rail freight in Australia.

## Exhibit 2: Average freight costs and transit times



a. Rail freight costs excluding pick-up and delivery.

Note: Average freight costs for oil prices at approximately US\$30–50 per barrel.

Source: Bureau of Infrastructure, Transport and Regional Economies, Road and rail freight: Competitors or complements? – 2009.

In situations where there is a choice between road and rail, other important factors in the choice of mode include logistical factors, such as the type of goods being carried and quality of service characteristics such as:

- cost
- speed and delivery times
- reliability and frequency of services
- risks of damage and loss.

With any freight movement, the total 'door-to-door' service is what matters most to shippers and consumers. Road can provide a single-mode door-to-door service, whereas moving goods by rail typically involves moving freight onto road at some point, which adds to the total freight costs and transit time.

Moving freight on rail is inherently less flexible than road as users can only access the network when permitted to do so and access is carefully controlled. Users are allocated specific train paths which specify entry and exit points, and journey times for a train on a particular rail corridor. However, the ease and speed with which rail can move freight across long distances is particularly well suited to bulk freight commodities, such as milk, wheat, sugar, coal or iron ore. Bulk freight is usually low unit value, high-volume commodities which can be easily poured or pumped into transport holds. These commodities represent the majority of the freight moved in Australia as a whole. The Bureau of Infrastructure, Transport and Regional Economics (BITRE)<sup>1</sup> reports that bulk freight movements in Australia in 2015–16 represented a total of 559.1 billion tonne kilometres (tkm)<sup>2</sup> of which 381.1 billion tkm (68 per cent) was moved on rail. In comparison, non-bulk freight represented 170.1 billion tkm for the same period.

<sup>1</sup> BITRE is part of the Commonwealth Government's Department of Infrastructure, Transport, Regional Development and Communications. Its role is to provide economic analysis, research and statistics on infrastructure, transport and cities issues.

<sup>2</sup> A unit of measurement which represents the movement of one tonne of freight over a distance of one kilometre.

## 1.2 Freight movement in Greater Sydney

As shown in Exhibit 3, two-thirds of all freight in New South Wales passes through Greater Sydney (excluding coal).

The volume of freight in Greater Sydney is expected to increase by 48 per cent by 2036 (from 194 million tonnes in 2016 to 288 million tonnes in 2036), a rate that is far higher than the rate for New South Wales as a whole (28 per cent forecast growth), or for the regional areas of New South Wales (15 per cent forecast growth). This increasing demand for the movement of freight is driven by increasing population and economic growth.

**Exhibit 3: Annual freight movement in New South Wales, by region, 2016**

| Region         | Volume<br>(million tonnes) | Share of volume<br>(%) |
|----------------|----------------------------|------------------------|
| Greater Sydney | 194                        | 66                     |
| Regional NSW   | 66                         | 23                     |
| Inter-capital  | 34                         | 12                     |
| <b>Total</b>   | <b>293</b>                 | <b>100%</b>            |

Notes: Data exclude coal freight.

Source: TfNSW Freight and Ports Plan 2018–2023.

At the current time, approximately 80 per cent of all freight in Greater Sydney is moved on road, reflecting the specific characteristics of this location and the fact that a great deal of freight ends up on roads to reach its final destination, irrespective of any other modes of transport that may have been involved prior to that point. Further, just five per cent of all rail paths on the Sydney Trains network are dedicated to freight, with another four per cent available for freight movements on an ad hoc basis.

The Plan notes that increasing rail freight in Greater Sydney could assist in meeting future demand for freight movements, improve congestion, and have some positive environmental impacts.

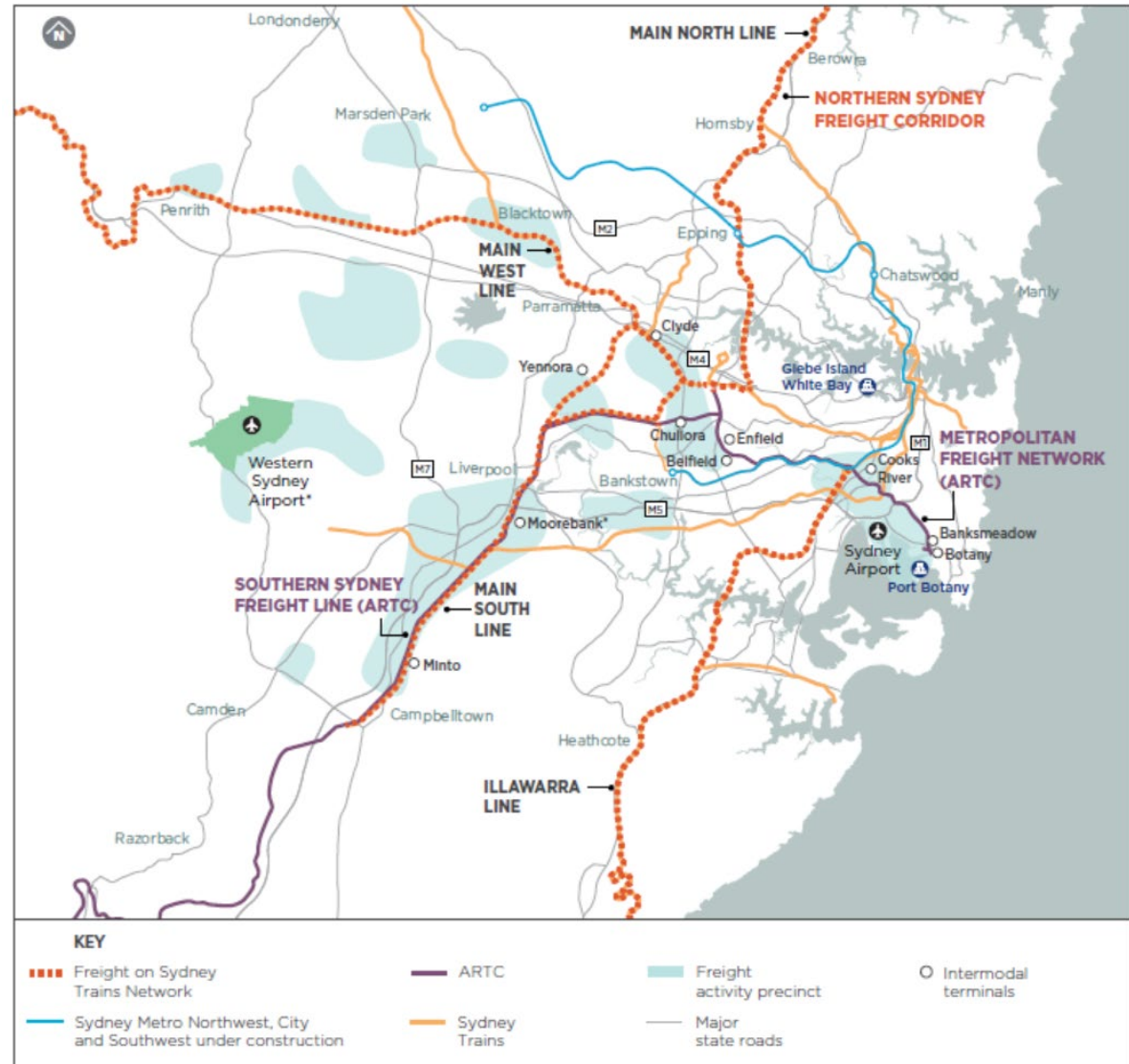
## 1.3 Greater Sydney network

The Australian Rail Track Corporation (ARTC) and Sydney Trains both manage freight lines in New South Wales. The ARTC leases and manages the New South Wales Interstate, Hunter Valley and Metropolitan Freight Networks from TfNSW. The ARTC also owns and manages the Southern Sydney Freight Line. The ARTC is an Australian Government-statutory owned corporation which sits outside the New South Wales Auditor-General's mandate, and so this audit did not assess the activities of the ARTC.

Sydney Trains manages the Main West line, the Main North line, the Illawarra line and the shared Sydney metropolitan network which is owned by TAHE.

Exhibit 4 shows the freight and passenger lines in Greater Sydney, and illustrates the connections to regional New South Wales, other metropolitan areas and other states. Exhibit 5 gives an example of a rail freight operator passing through multiple networks as it travels through Greater Sydney.

**Exhibit 4: Greater Sydney freight and passenger rail network**



Source: TfNSW Freight and Ports Plan 2018–2023.

## Exhibit 5: An example of rail freight movements in Greater Sydney

### Rail Freight moving through Greater Sydney often uses multiple networks

A train moving freight from western New South Wales to the south coast could end up travelling on four paths across three networks. These are:

- the Country Rail Network which is currently run by John Holland Rail, but will be run by UGL Rail from 2022 to 2032
- the Main West Line (part of the metropolitan shared rail network) which is controlled by Sydney Trains
- the Metropolitan Freight Network which is controlled by the ARTC
- the Illawarra Line (part of the metropolitan shared rail network) which is controlled by Sydney Trains.

Freight trains can be up to 1.5 km long and take considerably longer to slow down and speed up than passenger trains. The operators of these trains must request separate paths for each leg of their journey and the train will need to reach the borders of each of these networks at the scheduled time to continue to the next part of its journey. A delay on one path could result in a train missing its path on the next network which could have knock on effects, including increasing delays for the rest of the journey and necessitating cancellation and rebooking of the remaining paths. See Exhibit 15 for a detailed example of a rail freight delay.

Source: Audit Office of NSW research 2021.

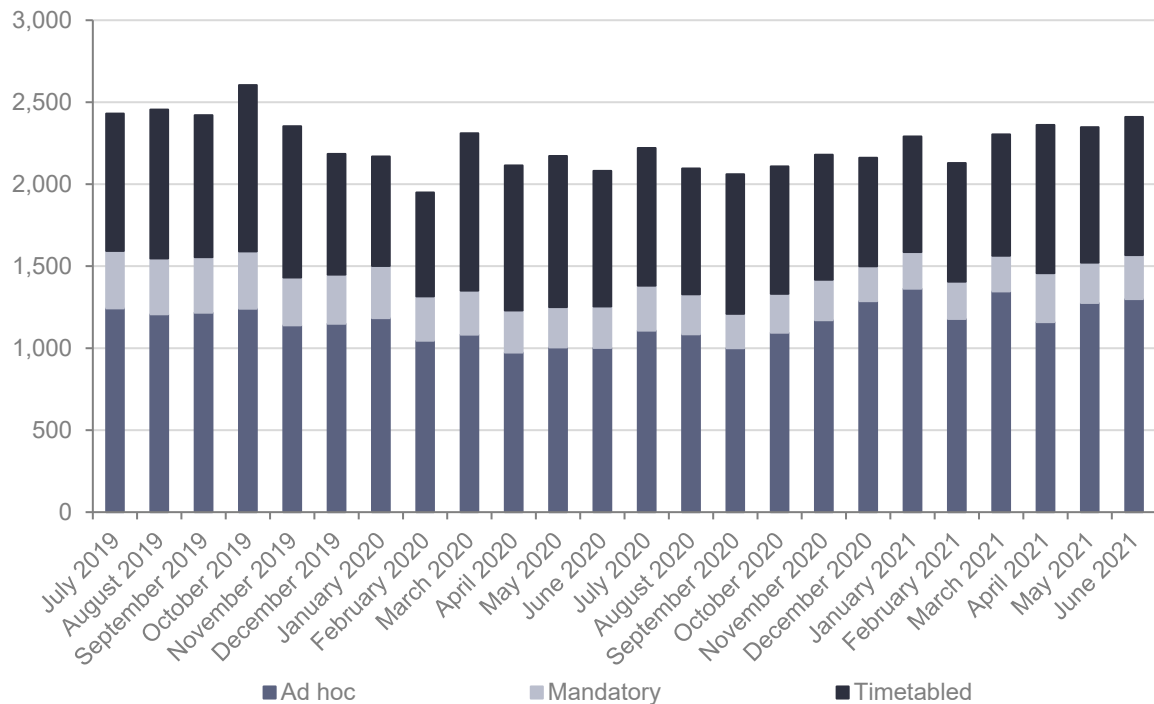
Between 1 July 2019 and 30 June 2021, the average number of freight trains on the metropolitan shared rail network was 2,246 trains per month. The transport agencies classify paths as:

- Ad hoc:
  - a path which is not timetabled in the Standard Working Timetable and is made available to an operator on a specified day
- Mandatory:
  - a path allocated to an operator
- Timetabled:
  - an entitlement to run a train on a given route as in the Standard Working Timetable.



Exhibit 6, below, shows the monthly distribution of paths over this period, by path classification. Timetabled paths made up 36 per cent of all paths, 12 per cent of paths were mandatory and 52 per cent of all paths were ad hoc meaning that they were booked just 72 hours in advance. However, ad hoc paths could also include timetabled paths that have been altered for some reason, such as a change in the length of a train, its weight, or the time of running. Paths of this sort are classified as ad hoc in this data even if they originally appeared with a different classification in the SWTT.

**Exhibit 6: Freight trains in Greater Sydney 1 July 2019 and 30 June 2021**



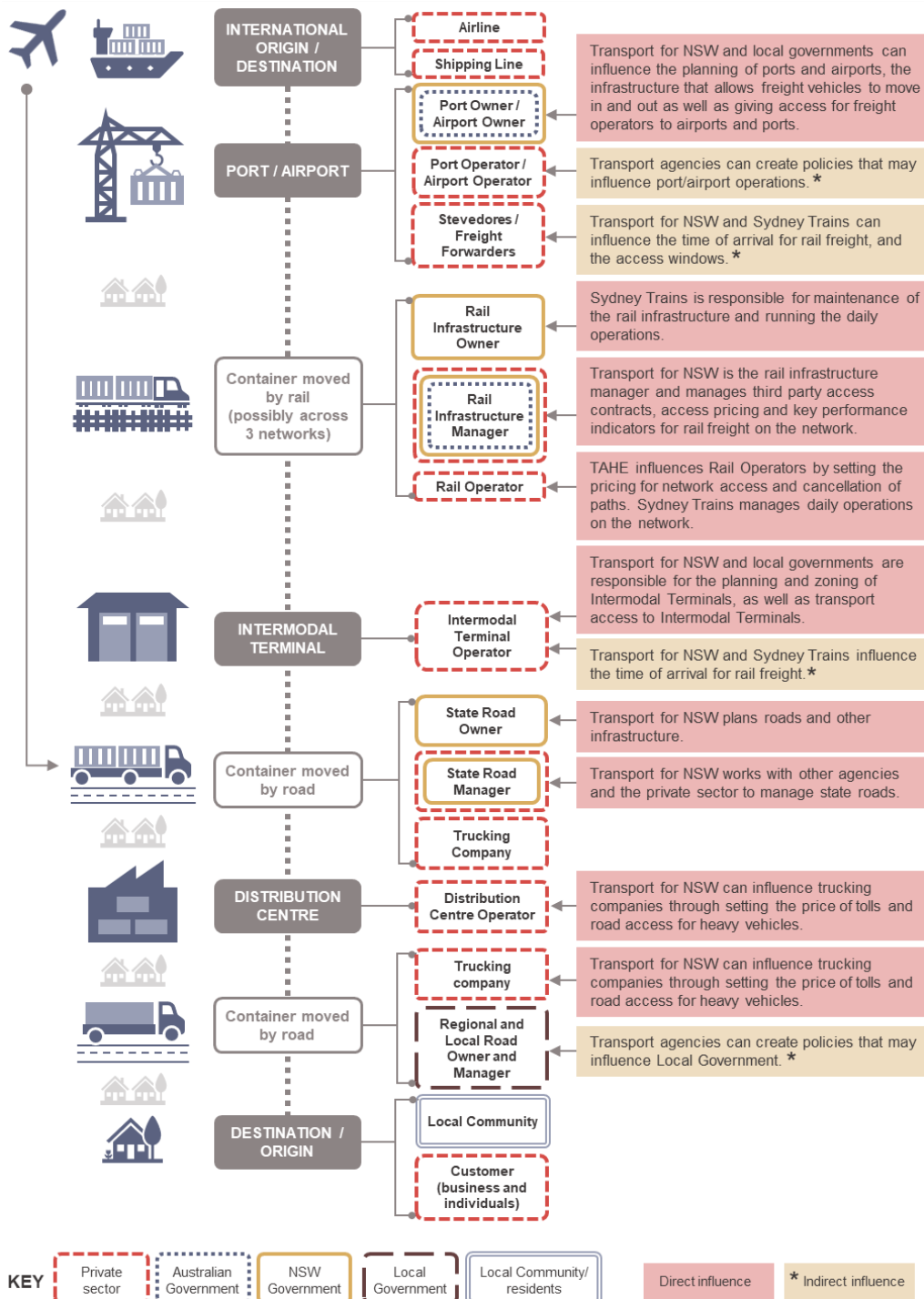
Source: Audit Office of NSW analysis of Sydney Trains data (unaudited figures).

## 1.4 Roles and responsibilities

Transport for NSW (TfNSW), Sydney Trains and the Transport Asset Holding Entity (TAHE) are responsible for the provision of access and managing the rail operations of the network to accommodate freight, in conjunction with port operators (NSW Ports and Port of Newcastle), other rail infrastructure owners (ARTC and Country Rail Network) and rail freight operators.

From a supply chain perspective, the transport agencies have various levers under their direct control, and they need to work with relevant stakeholders to improve the efficiency and effectiveness in other parts of the freight logistics task. Exhibit 7 outlines the supply chain and identifies areas where the transport agencies have direct or indirect influence.

## Exhibit 7: Supply chain and TfNSW areas of influence



Source: Audit Office of NSW research based on Transport for NSW Freight and Ports Plan 2018–2023.

### Transport Asset Holding Entity

On 1 July 2020, the NSW Government transitioned RailCorp (a subsidiary of Transport for NSW) into TAHE. TAHE is a statutory state-owned corporation created for the purpose of owning rail property assets, rolling stock and rail infrastructure in New South Wales. Under section 11 of the *Transport Administration Act 1988* (the Act), the functions of TAHE include holding, managing, operating and maintaining transport assets, and promoting and facilitating access to the New South Wales rail network in accordance with the NSW Rail Access Undertaking (the Undertaking).

TAHE is the owner of rail infrastructure in the Sydney metropolitan areas, as well as property assets and rolling stock. TAHE allows Sydney Trains and NSW Trains to use these assets and provides access to rail infrastructure to third-party operators under track access agreements.

In the context of this audit, TAHE uses Sydney Trains and TfNSW as agents to fulfil its duties. Under this arrangement, TfNSW and Sydney Trains are appointed to manage and deliver TAHE's obligations under the access agreements. On 30 June 2021, a new agreement was signed between TAHE, Sydney Trains and TfNSW. Before 30 June 2021, and in accordance with TAHE's Implementation Deed, TAHE operated under the terms of the former RailCorp's existing arrangements and agreements.

## **Transport for NSW**

Under section 3D of the Act, TfNSW has a statutory objective to promote the safe and reliable delivery of public transport and freight services. TfNSW is the main NSW Government agency responsible for transport-related infrastructure investment and delivery.

The department also manages policy and strategy, as well as the creation of the Standard Working Timetable and contract negotiations with third-party freight operators who wish to access the network. The SWTT documents all of the train paths that are planned for operation on the network. This includes passenger rail services as well as mandatory and timetabled freight paths.

## **Sydney Trains**

In July 2017, the NSW Government established Sydney Trains as an independent agency. Prior to this, Sydney Trains was a subsidiary of RailCorp. Under Section 36(A)(1) of the Act, Sydney Trains has the statutory objectives to deliver safe and reliable railway passenger services in an efficient, effective and financially responsible manner.

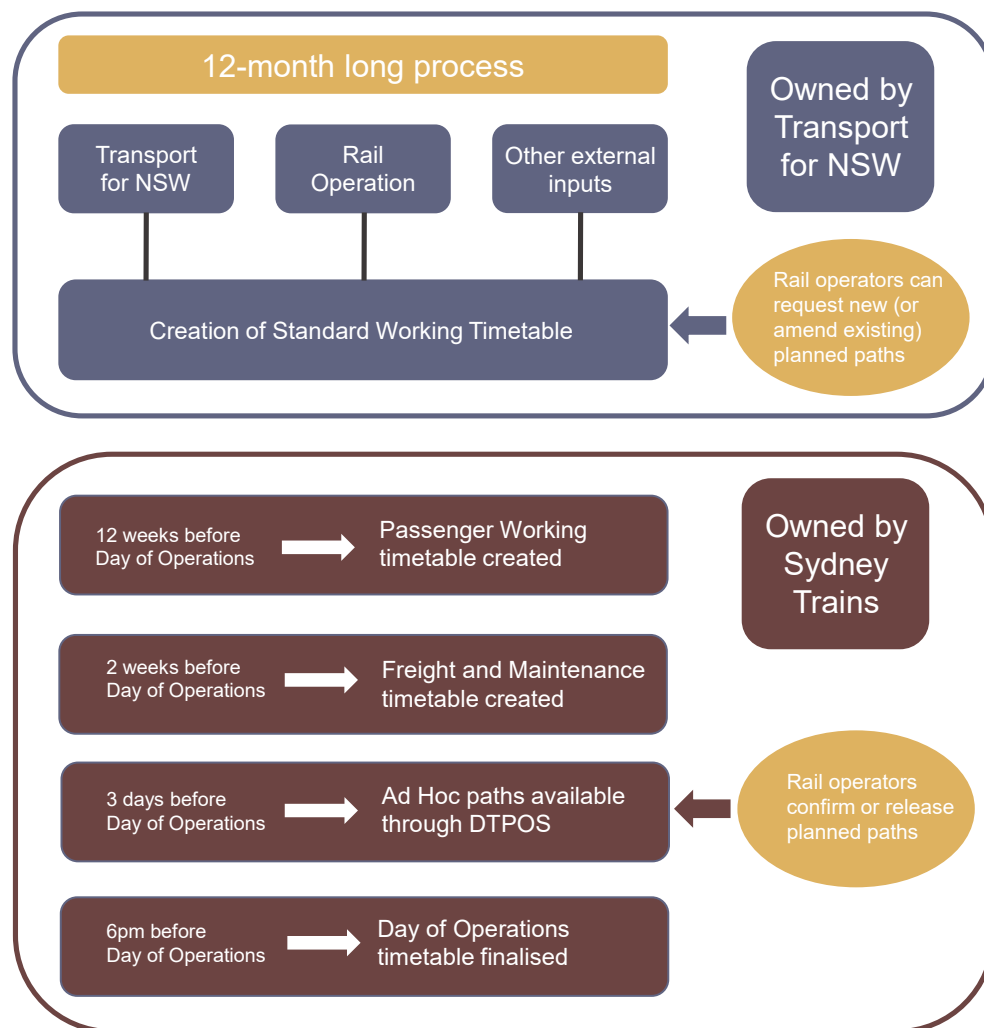
Alongside providing passenger rail services, Sydney Trains is responsible for maintaining the Sydney Trains network. It manages the day-to-day movement of trains, including managing delays and incidents on the network. Sydney Trains also manages the creation of the Daily Working Timetable (DWTT). The DWTT is created three days in advance of the day of operation and is the result of adding ad hoc freight paths, possessions for maintenance<sup>3</sup> and special events to the information contained in the SWTT.

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<sup>3</sup> A possession is a section of track needed for maintenance or repair work which is unavailable for trains until the work is complete.

Exhibit 8 shows the sequence of processes used in creating the SWTT and DWTT.

### Exhibit 8: TfNSW and Sydney Trains timetable processes



Source: Audit Office of NSW research based on TfNSW and Sydney Trains processes.

### Changes to the *Transport Administration Act 1988*

For the period July 2017 until July 2020, section 5(1)(b) of the Act specified that one of the primary objectives for RailCorp was to 'ensure that the part of the New South Wales rail network vested in or owned by RailCorp enables safe and reliable railway passenger and freight services to be provided in an efficient, effective and financially responsible manner'. Section 36(A)(1) of the Act noted that the principal objective of Sydney Trains was only to deliver 'safe and reliable railway passenger services in an efficient, effective and financially responsible manner'.

Since July 2020, the RailCorp objective no longer appears in the Act. However, the Sydney Trains objective remains the same and TfNSW retains its objective to promote the safe and reliable delivery of freight services, as above.

## 1.5 Policy framework

In 2016, TfNSW released Future Transport 2056, the overarching policy for the development of transport in New South Wales. Future Transport 2056 details a 40-year vision, directions and principles for transport in New South Wales and is intended to guide investment over the longer term. It notes the necessity of increasing rail freight to accommodate predicted increases in demand for freight movement and, specifically, that metropolitan transport networks in New South Wales will need to carry double the current volume of freight by 2056.

TfNSW developed Future Transport 2056 collaboratively with the Greater Sydney Commission, Infrastructure NSW, and the Department of Planning, Industry and Environment to ensure New South Wales's overarching strategies for transport and land use planning align and complement each other, and deliver an integrated vision for the State. TfNSW refreshed Future Transport 2056 in November 2020 to reflect progress to date and to include the impact of major events, such as recent bushfires and the COVID-19 pandemic. TfNSW is also currently undertaking a more substantial review of Future Transport 2056 to review the long-term investment strategies including a greater focus on freight. The review will also investigate possible targets to drive improvement and to reflect increased focus on sustainability. TfNSW expects to complete this review by March 2022.

Future Transport 2056 was developed alongside and complements the Greater Sydney Commission's Metropolis of Three Cities, which sets a 40-year vision and 20-year plan to manage growth and change in Greater Sydney. The Greater Sydney Commission has also started a review of the Metropolis of Three Cities which will be completed by the end of 2021.

TfNSW intends to deliver Future Transport 2056 through a series of supporting plans. For this audit, the most relevant plan is the NSW Freight and Ports Plan 2018–2023 (the Plan). The Plan notes that freight efficiencies could be improved if some of the commodities currently carried on roads were shifted to rail or coastal shipping.

In particular, the Plan states that the amount and the efficiency of rail freight need to improve. The Plan also notes that one train can carry as much cargo as at least 54 trucks <sup>4</sup> and that increasing rail freight would:

- meet predicted demand for freight movements
- improve the efficiency of freight movements
- improve congestion, particularly on urban roads
- have some positive environmental impacts.

There are also some measures for success reported in the Plan. For freight capacity these include:

- delivering over \$5.0 billion of investment over five years to boost freight capacity and efficiency
- maintaining the train paths needed by freight within Greater Sydney's shared rail network
- increasing the share of rail freight at Port Botany from 17.5 per cent in 2016 to 28 per cent by 2021
- achieving travel time reductions, reliability improvements and improved safety and environmental outcomes through delivering capacity building freight programs and more effective local planning for freight.

The Implementation Plan for the Freight and Ports Plan (the Implementation Plan) is designed to operationalise the Plan and contains 117 initiatives representing the objectives of the Plan.

TfNSW also has a ten-year Blueprint (the Blueprint) intended to guide and focus delivery of transport services to 2029. The Blueprint details intended outcomes, ambitions and strategic priorities. In the context of rail freight, the most relevant outcomes and measures are:

- safe, seamless journeys for people and goods resulting in a reduction in road toll and a transport system that delivers every day for people and freight:
  - key measurements for this outcome include network performance
- quality assets and efficient networks, managed at the right price so that New South Wales has the most efficient goods movement in Australia and delivery models are both financially sustainable and deliver the best social and economic outcomes:
  - key measurements for this outcome include freight efficiency.

<sup>4</sup> This estimate is based on a 600m metropolitan port shuttle moving into and out of Port Botany, and average port truck and train container densities.



To fulfil the goals of the Blueprint, TfNSW has identified seven priorities. These are:

- working in partnership with communities, governments and industry
- data-driven decision making transforming the customer experience by providing the right information and processes at the right time
- using technology to provide innovative solutions to enhance customer and people experience
- place-based integrated service design to provide mobility options to serve customers and communities
- enabling the mobility ecosystem so that providers and mobility options deliver the right outcomes
- financial sustainability to afford investment with less reliance on taxpayer subsidies
- evolution of work to be prepared for a technology-enabled future.

## 1.6 Evolving Transport

### TfNSW's new operational model focuses on the end-to-end movement of freight

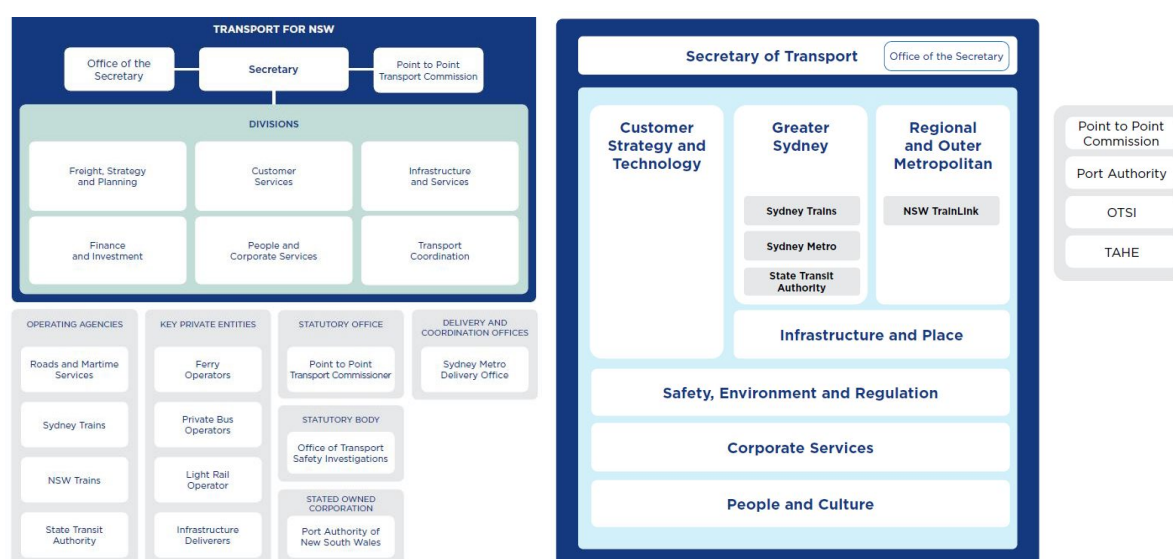
In 2019, TfNSW commenced Evolving Transport — a transformation program intended to improve coordination and integration across all modes of transport. A major step was the integration of the former Roads and Maritime Services into Transport for NSW in late 2019.

Evolving Transport has marked a shift to a 'mode agnostic' approach to freight that does not separate modes of transport (i.e., road versus rail), and instead focuses on the whole supply chain. A key element of this approach is the acknowledgement that the end-to-end movement of freight will often include using more than one mode of transport.

TfNSW also intends to make freight an integrated part of 'everyone's business' and to raise the profile and importance of freight across the transport agencies, as opposed to the previous siloed model for managing freight.

The impact of Evolving Transport has been to alter the organisational structure of TfNSW. Exhibit 9 illustrates the structure before and after Evolving Transport.

### Exhibit 9. TfNSW before and after Evolving Transport



Note: The structure of TfNSW before Evolving Transport is on the left and the structure after Evolving Transport is on the right.

Source: TfNSW Annual Report 2017–18 volume 1, TfNSW 10-Year Blueprint.

The Freight Branch now sits inside the Customer Strategy and Technology division of TfNSW, Sydney Trains exists within the Greater Sydney division of TfNSW, and TAHE is a state-owned corporation. In February 2021, Freight Branch (the Branch) put its new organisational structure into operation.

Freight Branch has developed a strategy approach that has six distinct parts. These are to:

- develop and program manage TfNSW's multi-modal Freight Strategy
- manage delivery of the initiatives in the Freight and Ports Plan 2018–2023
- evaluate performance against strategic objectives, identify and provide analytics on key agency-wide strategic and business planning metrics
- identify priority initiatives and mechanisms across TfNSW to enable improved freight outcomes across modes
- lead the continued evolution of Freight Strategy and objectives
- partner with Advances Analytics and Insights to develop and implement a Freight Data Strategy.

TfNSW advises that the purpose of these approaches, and the resulting projects, is to provide strategic direction. TfNSW acknowledges that this strategic direction is required to make up for the deficiencies in strategy that have been identified in this report.

TfNSW also advised that there are some systemic issues with record keeping. Staff have reported that historical information is difficult or impossible to locate or access resulting in a loss of corporate knowledge. The Strategy and Planning team within TfNSW's Freight Branch has commenced a strategic project to locate data relevant to freight across the Transport cluster.

## 1.7 About the audit

This audit assessed the effectiveness of the transport agencies in increasing the use of rail capacity to meet increasing demands for the movement of freight.

This topic is particularly pertinent due to the COVID-19 pandemic, which has impacted the movement of freight globally. Nonetheless, effectively moving freight throughout New South Wales will be vital in helping the state manage the pandemic and for its economic recovery once this period is over.

The audit focused on:

- the monitoring of access to shared rail lines
- the management of avoidable delays of rail freight movements
- steps to increase the use of rail freight capacity in Greater Sydney.

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## 2. Increasing rail freight capacity

### 2.1 Transport strategies and plans

#### **Transport agencies do not have specific strategies to improve the use of rail freight capacity on the metropolitan shared rail network**

In 2016, TfNSW released Future Transport 2056, the overarching policy for the development of transport in New South Wales. Future Transport 2056 details a 40-year vision, direction and principles for transport in New South Wales and is intended to guide investment over the longer term. Future Transport 2056 notes the need to increase rail freight to accommodate predicted increases in demand for freight movement and, specifically, that metropolitan transport networks in New South Wales will need to carry double the current volume of freight by 2056.

TfNSW's long-term priority, as described in the Plan, is to provide greater separation of passenger and freight movement on the rail network, which will increase freight capacity and improve safety. Construction of the Southern Sydney Freight Line and the duplication of sections of the Northern Sydney Freight Corridor are investments towards improved rail freight outcomes. The Plan also notes that intermodal terminals are critical for increasing the utilisation of the rail freight network in Greater Sydney.

However, there are no clear and specific strategies to improve the effectiveness or capacity of the shared rail network in either the original or the refreshed versions of Future Transport 2056, or in any of TfNSW's supporting plans. Furthermore, the Plan only contains a commitment to 'maintain the number of train paths required by freight within the shared metropolitan rail network'. The lack of any commitment or target for increasing the number of possible freight paths is at odds with the declared goals and limits the ability of the transport agencies to increase the use of rail freight on the shared network. This exposes the risk that demand for freight rail will outstrip capacity before longer-term solutions become available.

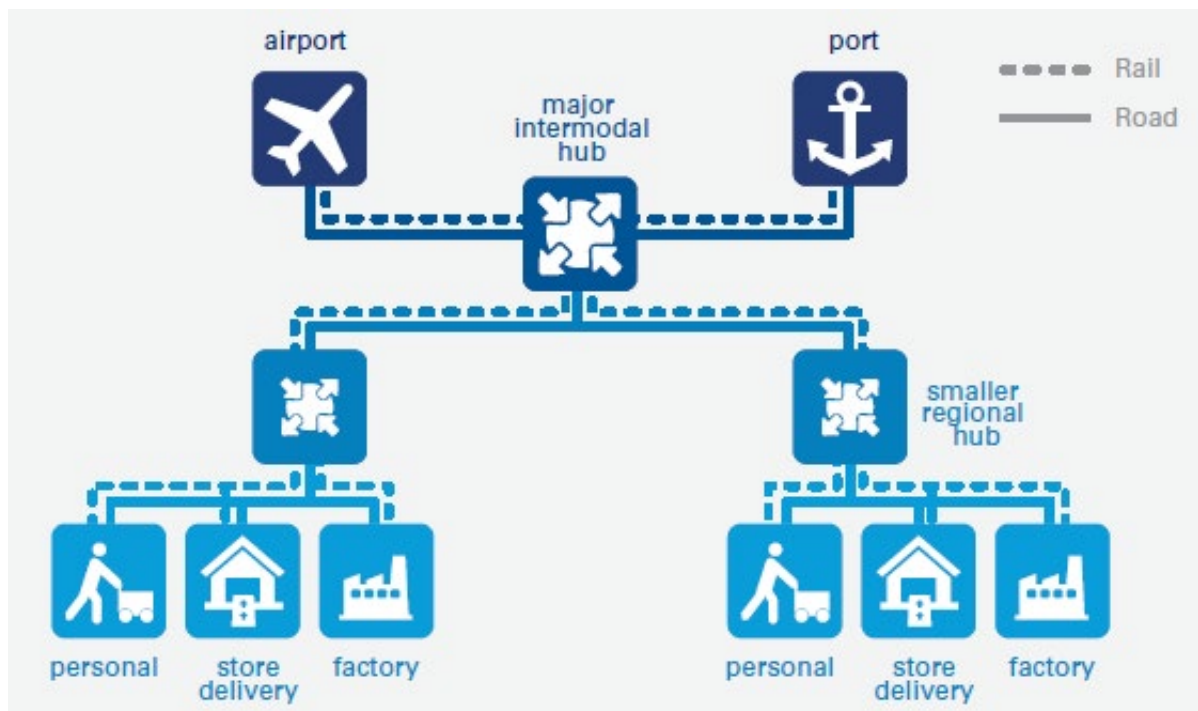
Improving the efficiency of the existing network through smaller scale interventions is critical, particularly in the short to medium term, if TfNSW is to achieve its longer-term objectives to improve the efficiency. These include issues such as:

- limits on axle weight capacity which constrain how much freight trains can carry
- sections of track where train speed is reduced forcing trains to slow down and then speed up again, which is a particularly time consuming process for a freight train
- inadequate siding lengths and passing loops preventing faster trains from passing slower ones and potentially creating delays across the network.

In November 2020, TfNSW updated Future Transport 2056 to reflect progress to date and the impact of major events, such as the COVID-19 pandemic and bushfires. This review, and the more substantial review of Future Transport 2056 which is currently in progress, are discussed in section 1.5 above.

Transport agencies do not know how to use the different parts of the freight network, including rail freight, to achieve the most efficient freight outcome. Freight in Greater Sydney is moved across a complex network of transport modes which includes the metropolitan shared rail network, dedicated freight lines, intermodal terminals, road freight and ports. Exhibit 10 illustrates the possible combination of modes in the supply chain network for goods entering Australia from overseas.

## Exhibit 10: Supply chain network



Source: Infrastructure Australia: Meeting the 2050 freight challenge - June 2017.

The correct choice of modes across the supply chain is vital to ensure the efficient transportation of goods. This is especially true for road and rail freight as they represent the majority of freight transportation in Greater Sydney. However, the transport agencies do not know what the best combination of road and rail freight is. As a result, improving the efficiency of the freight process in New South Wales is hampered by a lack of direction.

Future Transport 2056 does not contain any explicit targets for improving the use of rail freight capacity on the metropolitan shared rail network. The Plan notes that freight efficiency could be improved if some of the commodities currently carried on roads were shifted to rail or coastal shipping. The Plan contains one explicit target related to rail freight capacity — increasing the use of rail for freight movements to and from Port Botany from 17.5 per cent in 2016 to 28 per cent by 2021.

The transport agencies acknowledge that this one target and the high-level approaches detailed in the Plan and Future Transport 2056 are insufficient to drive improved rail freight outcomes. Furthermore, transport agencies acknowledge that they do not have sufficient information on the best use of the different parts of the network to achieve the most efficient freight outcomes. In particular, transport agencies do not know what 'good looks like' with regard to the best use of rail freight capacity.

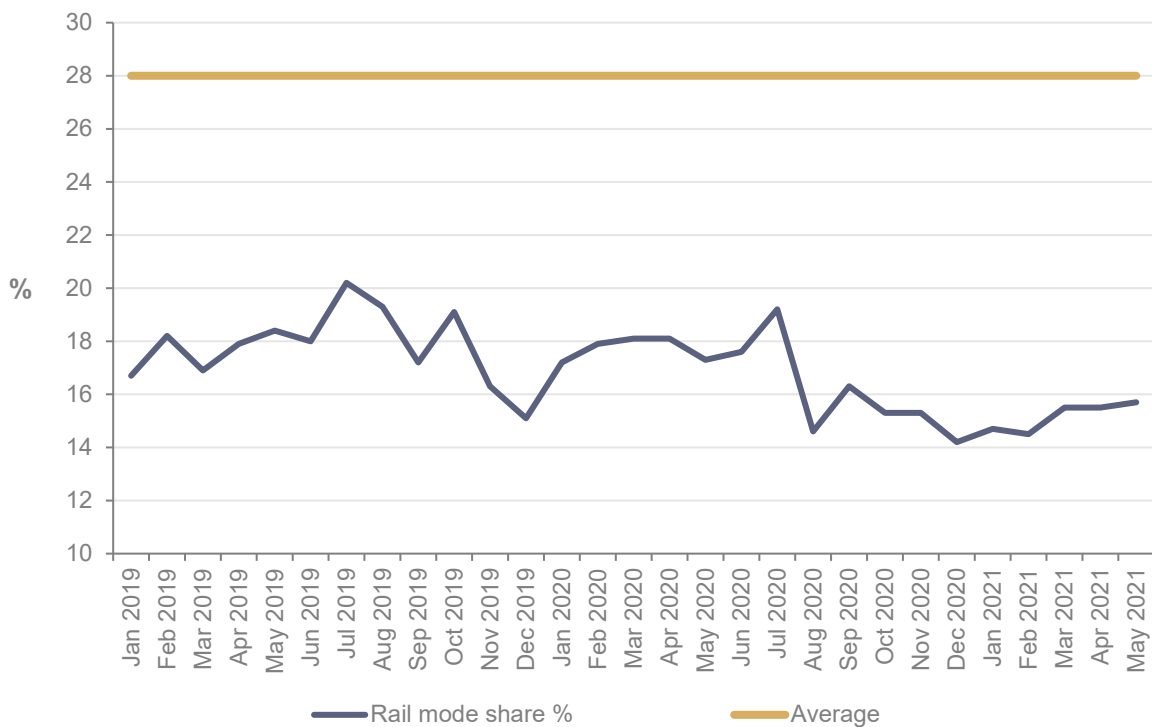
One of the first steps is to determine what good rail freight utilisation looks like and to devise a set of effective measures of success for rail freight. The transport agencies are attempting to develop policy levers to improve the use of rail freight capacity, but this cannot be effectively done without executive accountability and the development of clear outcomes. In addition, targets are needed to benchmark activity and measure progress. The lack of targets means that there is no clear picture of the success or progress toward increasing the effective and efficient movement of freight on rail. Ultimately, this exposes the risk that transport agencies will be unable to determine whether capacity will meet anticipated increases in demand.

### Rail share at Port Botany will not meet the targeted increase

TfNSW leased Port Botany to NSW Ports for 99-years in 2013. Port Botany is the largest container port in New South Wales and currently handles more than 99.6 per cent of all container trade in the state. Ninety per cent of imports that enter Australia through Port Botany each year are delivered within 60 kms of that location. Rail access to Port Botany is through the Metropolitan Freight Network which is managed by the ARTC. The ARTC is also managing an on-going project to duplicate the Port Botany rail line by adding a new track within the existing rail corridor. This \$400 million project is funded by the Commonwealth Government and is expected to be complete in late 2024. However, this project is out of scope for this audit as none of the entities involved are NSW Government agencies.

The one explicit target that does exist in the Plan is to increase the rail share of freight moved to and from Port Botany to 28 per cent by 2021. TfNSW's data on rail use at Port Botany indicates that this target will not be achieved and our analysis as part of this audit supports this conclusion. Exhibit 11 represents the percentage of rail freight at Port Botany carried on rail from January 2019 to May 2021.

**Exhibit 11: Rail freight at Port Botany (%) from January 2019**



Source: TfNSW 2021 (unaudited figures).

### TfNSW has some freight-specific strategies in development

TfNSW's Freight Branch has commenced four strategic projects. The first is a review of the Freight and Ports Plan and the remaining three projects are focused on developing strategies for improving:

- freight rail
- port efficiency
- freight data.



Exhibit 12 gives an overview of these projects including the estimated date of completion. Further details on all of these projects can be found in Appendix three.

### Exhibit 12: TfNSW strategic projects

| Project                                   | Estimated date of finalisation | Details   |
|---|--------------------------------|---|
| Review of the Freight and Ports Plan      | December 2021                  | Will cover both the Freight and Ports Plan and the Implementation Plan  |
| Development of a Freight Rail Strategy    | April 2023                     | Four stages: <ul style="list-style-type: none"> <li>improving sustainability, safety and efficiency of rail freight to and from Port Botany</li> <li>ensuring that the benefits of Inland Rail are realised</li> <li>managing non-containerised freight within Greater Sydney.</li> <li>integrating the three stages above into one strategy.</li> </ul>  |
| Development of a Port Efficiency Strategy | December 2022                  | Four stages: <ul style="list-style-type: none"> <li>the movement of containerised freight through Port Botany</li> <li>movement of bulk goods and liquids through Port Botany and Sydney Harbour and the supply chain network</li> <li>the movement of goods through the Port of Newcastle, Port Kembla, Port of Eden and Port of Yamba</li> <li>integrating the three stages above into one strategy.</li> </ul> |
| Development of a Freight Data Strategy    | December 2022                  | <ul style="list-style-type: none"> <li>publishing and update freight forecasts and performance measure data</li> <li>enhancing freight data</li> <li>improving data sharing.</li> </ul>   |

Source: Audit Office of NSW analysis of TfNSW Gate 0 documents – 2021.

## 2.2 Data and measuring performance

### **Sydney Trains and Transport for NSW gather some data on rail freight, but a lack of clarity on what data is collected limits their ability to share data in order to improve performance**

Sydney Trains records data on train movements in real-time and collects some data on major delays and incidents. TfNSW collects data about train movements and feedback from rail operators and other stakeholders for use in the construction of the Standard Working Timetable and third-party contracts. However, the different types of data gathered and the separation between the teams that gather data means that there is a lack of clarity around what data is gathered and who has ownership of that data. This makes data-sharing difficult and limits analysis and reporting.

Furthermore, there are some gaps in the data collected. In particular:

- transport agencies do not collect information on rail freight operator decisions to release, or not use, train paths. An operator can also release a path and purchase an alternative ad hoc path if it believes that the timing of the ad hoc path is better suited for its operations on the day in question. In this situation, the transport agencies will, again, have no information about this change and the reasons for it. The absence of this information limits the abilities of the transport agencies to incorporate this information into future planning or to facilitate better use of the paths available for rail freight.
- Sydney Trains does not systematically collect data on, analyse or report on its management of all rail-freight related delays and incidents. This is explored further in Chapter 4 of this report.

Both TfNSW and Sydney Trains have projects in progress to improve data governance, identify gaps in the data, clarify data ownership and raise awareness of data across the transport agencies. These projects are intended to provide assurance about the accuracy and quality of data as well as establishing controls for security, privacy and access. However, these projects are still in their early stages and the outcomes are not yet known.

### **Transport agencies do not use a consistent definition of rail freight capacity, limiting their ability to set strategic targets**

Transport agencies do not have a documented definition for rail freight capacity, and there is no guidance for staff as to how this measure should be calculated. Different transport agencies and different teams within agencies define rail freight capacity in different ways. Definitions include:

- the volume of freight carried, measured either in tonnes or in terms of twenty-foot equivalent units (TEUs)<sup>5</sup>
- the number of trains travelling through a particular point in a designated time period
- the number of paths available at a specific location
- the percentage of freight moved on rail at Port Botany
- the proportion of a freight train that is filled with goods.

It is possible that there is no single definition for rail freight capacity that works in every situation and different agencies and teams are right to use different measures for this term. However, inconsistent definitions make it difficult for transport agencies to set strategic and meaningful objectives. In order to effectively increase rail freight capacity, the transport agencies need to clarify how they will measure performance and improvement, including articulating how they will take into account the different definitions for freight capacity. Without this shared understanding, there is a risk that transport agencies will not identify additional capacity or fully utilise existing capacity.

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<sup>5</sup> A TEU is a popular but inexact unit of cargo capacity based on the internal dimensions of a container which is 20 feet long, and eight feet tall and wide. However, although the most common height for a shipping container is 8 feet 6 inches (2.59 m) high, containers can vary in height from 4 feet 3 inches (1.30 m) to 9 feet 6 inches (2.90 m) resulting a wide range of different volumes.

### **TAHE does not monitor the performance of its agents with respect to rail freight**

TfNSW is responsible for managing and negotiating third-party access to rail lines on behalf of TAHE. Similarly, Sydney Trains acts as an agent for TAHE with respect to network control. TAHE has an agreement with both agencies to act as its agents in this regard.

However, there are no performance measures in these agreements, and neither TAHE nor its predecessor RailCorp ever attempted to monitor the activity of its agents. Further, neither agency ever checked that TfNSW and Sydney Trains are meeting their commitments under the agreement.

The Act does not explicitly require TAHE to provide oversight of agents acting on its behalf. Generally, however, when a party enters into an agreement to act on behalf of another party, the agreement would clearly describe roles, responsibilities, accountabilities and assurance for all parties. The current agreements between TAHE, TfNSW and Sydney Trains do not articulate who is ultimately accountable for oversight and assurance functions related to rail freight access.

TAHE advised us that its oversight and assurance responsibilities are limited to those related to safety, but that it intends to include third-party access in its internal audit program.

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## 3. Access and use of rail freight paths

### 3.1 Freight operator access to the Sydney network

#### **Rail freight operators are granted access to the network under the NSW Rail Access Undertaking**

Third-party rail operators are permitted to access rail lines under Schedule 6AA of the Act subject to the provisions of the NSW Rail Access Undertaking (the Undertaking), which was introduced in 1999. The Undertaking applies to selected rail lines within New South Wales that are owned by TAHE and the ARTC. It does not apply to interstate rail lines<sup>6</sup> or the majority of the Hunter Valley Coal Network.<sup>7</sup>

The Undertaking details the:

- process for negotiating access
- contents of the agreement
- method of arbitration by the Independent Pricing and Regulatory Tribunal (IPART), and the exclusions to the same
- role of the rail infrastructure owner (RIO) and information the RIO must disclose
- pricing principals for the charges levied by RIOs for access to their lines.

The Undertaking also contains a requirement for IPART to conduct an annual review of RIOs' compliance with certain requirements of Schedule 3 (Pricing Principles) of the Undertaking. This ensures that the access revenue received by the RIOs does not exceed the full economic cost of the rail sectors required by an access seeker, or group of access seekers, on a stand-alone basis. This is based on the cost of operating the lines including:

- maintaining the lines
- network control
- corporate overheads
- rate of return
- depreciation, and profit and loss on disposal of assets.

The Undertaking requires RIOs to provide financial data for the previous financial year to IPART by 31 October each year so that IPART can confirm that the RIO has complied with the 'ceiling test'. This test confirms that access seekers have not been charged more than full economic cost of using the sectors to which they require access.

IPART is also currently reviewing the NSW Rail Access Undertaking and is due to issue its final report on the Undertaking in August 2022. The review will include recommendations on:

- the form of access and method of negotiation
- minimum conditions that should be included in access agreements
- appropriate pricing principles to apply to access prices
- whether current enforcement provisions are adequate, and stakeholders have sufficient right of review
- whether the Undertaking facilitates appropriate modal choice for freight.

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<sup>6</sup> Access to interstate lines is managed under the Interstate Access Undertaking (IAU) between the ACCC and the ARTC. The IAU details the conditions of access to the mainline standard gauge rail track owned or leased by the ARTC from Kalgoorlie in Western Australia to the Queensland border.

<sup>7</sup> The Hunter Valley Coal Network Access Undertaking (HVAU) between the ACCC and the ARTC covers the terms and conditions of access to the rail network operated by the ARTC in the Hunter Valley region of New South Wales.

### **The contract between TfNSW and third-party operators does not include KPIs and there are few mechanisms to manage poor performance**

The management and negotiation of third-party access to rail lines is managed by TfNSW on behalf of TAHE. Third-party access is managed using the Standard Access Agreement (the Agreement).

The Agreement between TAHE and rail freight operators does not include any key performance indicators for rail freight operators, nor does it mention operator performance in any detail. It does note that operator performance could be an issue if it adversely impacts on the efficient and effective use of the network. There are no requirements for operators to report on their performance, other than to provide financial information to IPART.

If TfNSW determines that an operator's performance is problematic, then TfNSW can suspend, cancel or amend the operator's access to the network. To start this process, TfNSW issues a 'notice of proposed action' to the operator. The notice specifies:

- details of the access rights to be suspended or cancelled, or describes any amendments to be made
- the proposed commencement or effective date of any suspension, cancellation or amendment
- the reasons for the suspension, cancellation or amendment
- what is required of the operator for the situation to be remedied.

The operator has two days to respond with a 'notice of dispute' which refers the situation to an expert (often IPART) for review and adjudication. If this does not happen, or if the expert agrees that the operator's performance is poor, then the operator's access rights can be suspended, amended or cancelled as in the notice of proposed action.

However, TfNSW staff advised that these mechanisms to improve freight operator performance are rarely used as they view the suspension, amendment or cancellation of access rights to be too harsh, and likely to have adverse impacts on the operator, allied businesses and consumers if used.

### **TfNSW and TAHE are developing a new access agreement which includes performance measures**

TAHE and TfNSW are currently working on a new third-party access agreement. This version includes an expanded section on operator responsibilities in the event of a breakdown or other incident taking place, and operator performance measures.

TfNSW advises that it intends to negotiate operator-specific performance measures with each rail freight operator. For the negotiation of effective performance metrics, TfNSW will need appropriate data to set benchmarks, staff with the capability to negotiate these terms and a plan for contract management. TfNSW intends that the new access agreements will be finalised by the end of December 2021.



## 3.2 Rail freight paths

**The Act requires transport agencies to prioritise passengers over freight, which impacts on their ability to maintain or increase rail freight capacity on the shared rail network**

A train path is the entitlement for a train to operate on a network along a specified route. It incorporates origin, destination and intermediate timing points at a day and time. TfNSW and Sydney Trains allocate train paths to rail freight operators for access to the metropolitan shared rail network.

Section 36(A)(1) of the Act specifies that Sydney Trains' principal objective is to deliver safe and reliable railway passenger services. These core services are to be delivered in an efficient, effective and financially responsible manner. As such, Sydney Trains' use of the shared rail network is focused on the movement of passenger trains and there is limited capacity for rail freight operators during peak times, although there is demand for freight paths during these periods.

Staff in the transport agencies have reported that moving freight trains on shared lines during peak times poses a risk to network operation as freight trains take more time to slow down and speed up than passenger trains, as well as being more unreliable. Sydney Trains also has the right to refuse to provide train paths to operators if providing access will impact negatively on passenger services.

In addition, under section 99D(5)(a) of the Act, the transport agencies are required to give 'reasonable priority' to passenger trains for the purposes of timetabling and network control on shared lines.

The Operations Protocol defines reasonable priority as:

reasonable priority and certainty of access for railway passenger services ...  
in relation to the allocation of train paths, service planning, real time control  
and incident management, network maintenance ...

However, the transport agencies do not have a consistent understanding of what this means in practice and the application of this term is subjective, raising the risk that this legislative requirement will be inconsistently applied.

During the morning and afternoon peak hours, Sydney Trains prioritises passenger rail services and, as a result, there are few paths available for freight trains on shared lines in Greater Sydney. There are no restrictions on the movements of passenger trains during their working hours, which run from 4:30 am to midnight for most services.

Programs such as 'More Trains, More Services' are increasing the number of passenger services across Greater Sydney, which makes it increasingly difficult to find capacity on the network for rail freight. These competing priorities create the risk that transport agencies will not be able to increase the use of rail freight capacity.

Use of passenger rail services in Greater Sydney has increased significantly in recent years, with patronage growing 6.9 per cent between 2015–16 and 2016–17, and 27.1 per cent over the five-year period before 2016–17.

As the population and rail patronage continues to grow, so too will competition for access to the shared rail network. Simply maintaining the number of train paths means there is a risk that freight rail capacity will fall behind demand, especially as demand continues to grow. This means that the transport agencies will be unable to meet their goals of increasing the amount of rail freight.

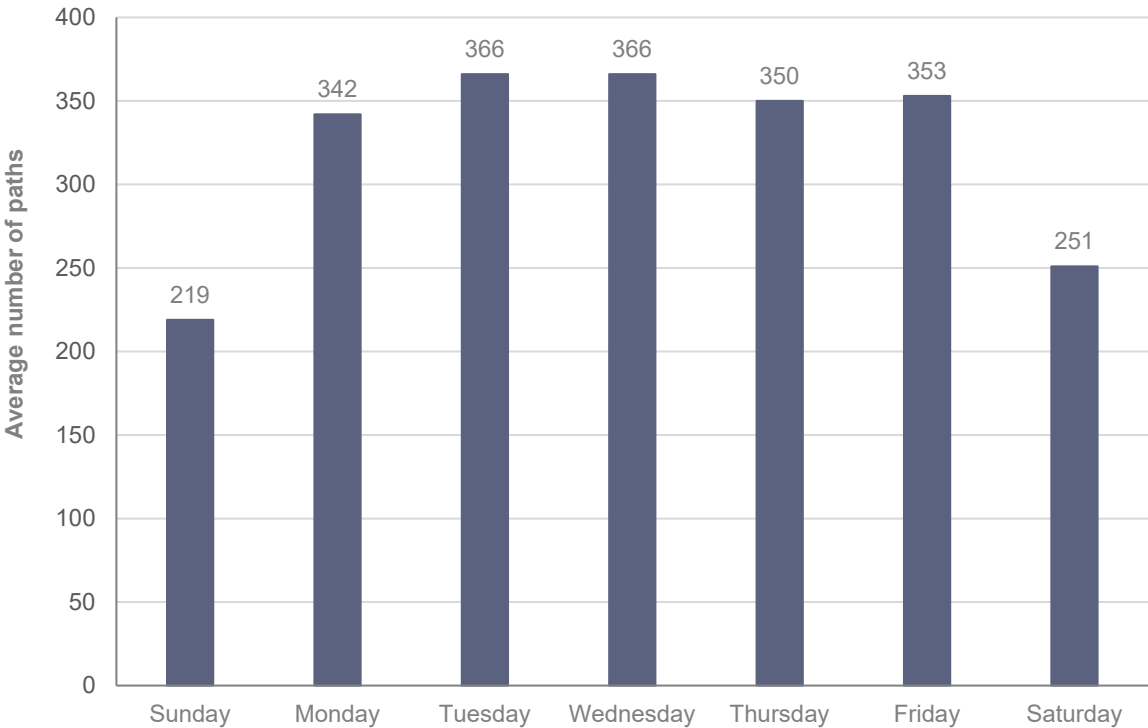
**There may be useable rail freight capacity on the metropolitan shared network but transport agencies do not know how much there is or if it could be used by rail freight operators**

Unused capacity exists at night and at weekends when demand for freight paths drops significantly. Freight paths at night and at weekends are not particularly attractive to freight operators as many intermodal terminals and ports offer a limited, or more costly, service during these periods. This means that freight operators pay more to use a terminal during these times or must find a place to park a freight train until a terminal re-opens. Transport staff also advised the audit that operating constraints in other parts of the supply chain impact on demand for rail paths - for example, a colliery may operate during limited hours, and seasonal demand for rail paths for agricultural goods can fluctuate.

Exhibit 13 shows the average number of freight paths per month across the days of the week between 1 July 2019 and 30 June 2021. As can be seen, the actual number of paths drops considerably at the weekend. The number of trains on weekdays averages 355 freight trains per month, but this drops to an average of 235 freight trains per month on weekends; a drop of approximately 34 per cent.

If the number of trains running at weekends was to be increased to match the number running during the week, this would result in approximately 120 additional freight paths each month, based on the number of freight trains on the metropolitan shared rail network between 1 July 2019 and 30 June 2021. However, this estimate does not take into account any changes in the number of freight services that could result from changes in the number of passenger services that operate at weekends. Nor does it take into account the increased need for maintenance that would result from a greater number of large and heavy freight trains using the metropolitan shared rail network, which could reduce the number of available lines.

**Exhibit 13: Average number of freight trains per month in Greater Sydney across the days of the week (1 July 2019 and 30 June 2021)**



Source: Audit Office of NSW analysis of Sydney Trains data (unaudited figures).

Further, the transport agencies do not know how much extra capacity there could be on the network. TfNSW advises that it is investigating opportunities to work with stakeholders, such as terminal owners and freight operators, to utilise this capacity. Transport agencies have an opportunity to improve the use of rail freight capacity if these paths can be made more attractive to rail freight operators. However, transport agencies do not know how much unused capacity exists or whether this capacity will meet future demand.

### **The earlier release of unused paths could increase the use of existing rail freight capacity**

TfNSW includes timetabled freight paths in the Standard Working Timetable. TfNSW allocates these paths to rail freight operators under third-party access agreements. Sydney Trains' processes require that operators confirm or release their paths at least 72 hours before the timetabled date. Paths that are not allocated by TfNSW and timetabled paths that are released by operators are available for use on an ad hoc basis (ad hoc paths). On the day of operation, paths are:

- previously confirmed and used by the operator as in the SWTT
- previously confirmed but not used by the operator
- previously released by the timetabled freight operator and used by another operator as an ad hoc path
- previously released by the timetabled freight operator but not used.

Transport agencies charge non-coal freight operators for access on a 'take or pay' system. This means that operators will pay for a path even if they do not use it, unless they can demonstrate that the path was unused due to circumstances beyond their control (force majeure). The fee is the same, irrespective of when the path is cancelled. This results in a situation where operators have the incentive to:

- request ad hoc paths as late as possible to minimize cancellation risk if their schedules change
- cancel mandatory or timetabled paths as late as possible before the day of operations, as there is no incentive to free up the paths for use by others.

For coal train paths, where there is no fee for a cancelled path, operators have no incentive to release unused paths as there is no payment required. TfNSW staff advised the audit that there may even be anti-competitive advantages to retaining an unused path to prevent another operator from accessing it.

The 72-hour deadline leaves other freight operators a relatively short period of time to request access to ad hoc paths and also leaves Sydney Trains little time to finalise planning for the day of operations. As noted in a consultant report commissioned by TAHE, it would be easier for operators to find suitable ad hoc paths and increase the use of existing rail freight capacity if rail freight operators made these decisions earlier.

Freight operators in other jurisdictions are required to confirm or release paths five days ahead of the day of operation and there can be financial rewards if they act earlier. This provides opportunities for forward planning for operators and rail infrastructure owners alike. Incentives could be used to encourage the earlier release of unused paths, which could increase the use of existing rail freight capacity.

Revenue from cancelled paths represented 12.9 per cent of the total revenue generated from operated services on shares paths in Greater Sydney in 2019–20. Exhibit 14 illustrates the number of operated paths, revenue and cancellations on shares rail lines in Sydney in 2019–20.

**Exhibit 14: Operated and cancelled paths on shared paths in Greater Sydney 2019–20**

| Commodity       | Operated services | Share of operated services (%) | Operated services revenue (\$m) | Share of operated services revenue (%) | Cancellation revenue (\$m) | Total revenue (\$m) | Cancellation revenue are a share of total revenue (%) |
|-----------------|-------------------|--------------------------------|---------------------------------|--|----------------------------|---------------------|---|
| Coal            | 6,052             | 25.3                           | 26.3                            | 54.6                                   | --                         | 26.3                | --  |
| General freight | 14,454            | 60.5                           | 18.0                            | 37.3                                   | 4.7                        | 22.7                | 20.7  |
| Grain           | 1,626             | 6.8                            | 2.6                             | 5.4                                    | 0.5                        | 3.1                 | 16.1  |
| Minerals        | 1,756             | 7.4                            | 1.3                             | 2.7                                    | 1.0                        | 2.3                 | 43.4  |
| <b>Total</b>    | <b>23,888</b>     | <b>100</b>                     | <b>48.2</b>                     | <b>100</b>                             | <b>6.2</b>                 | <b>54.4</b>         | <b>12.9</b>   |

Source: Audit Office of NSW analysis of TAHE report Freight Access Pricing - 2021 (unaudited figures).

**The transport agencies are exploring opportunities to add freight paths in peak times, however this work is limited in scope and impact**

The transport agencies are developing a Gold Paths initiative designed to encourage rail operators to improve performance by allowing high performing freight rail operators to access paths through Greater Sydney in peak times.

In order to be allowed to use these paths, the operator must demonstrate that their train does not pose a risk to the effective and efficient management of the network. This is achieved by the operator meeting a set of elevated physical, operational and performance benchmarks which should result in more reliable rail freight services.

Analysis has taken place on sections of the Western and Blue Mountains lines to determine if there is spare capacity available for Gold Paths. This analysis was based on the SWTT for June 2021 for both freight and passenger trains. The analysis revealed that there was one possible Gold Path on these lines and a small number of possible extra off-peak paths.

A similar analysis has been completed on the T4 Illawarra and South Coast lines which identified four possible Gold Paths for trains travelling towards Sydney. This analysis has not yet been extended to the rest of the network.

There is a risk that this strategy for encouraging rail operators to exceptional performance will not deliver the intended increases in performance, if the operators do not believe that extra paths will be forthcoming.

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## 4. Reducing avoidable delays

### 4.1 Avoidable delays

**Transport agencies are not collecting or reporting on avoidable rail freight delays, nor are they attempting to reduce these delays**

The Plan includes a section 'Reducing avoidable rail freight delays', which notes that freight trains miss their scheduled paths on the rail network for various reasons, such as network performance issues, infrastructure problems, bad weather and loading issues. In addition, breakdowns and mechanical issues can also cause delays. However, the Plan notes that only ten per cent of these delays are avoidable.

There is no evidence that transport agencies are working strategically to reduce the number of avoidable delays. The transport agencies have no definition of an avoidable delay and are not monitoring whether delays are avoidable or not. Sydney Trains is not collecting data or reporting on avoidable rail freight delays. The use of complete and accurate incident data would be a vital input to ensuring avoidable delays are identified, analysed and reduced.

In addition, there is no target for an acceptable level of avoidable delays, and no strategy for reducing avoidable delays. As a result, transport agencies are unable to reduce avoidable delays and this opportunity for potential improvement is lost.

### 4.2 Managing delays

**Sydney Trains has recently developed a measure to assess the impact of delays on rail freight**

Sydney Trains is responsible for the coordination of all trains that use the Sydney Trains Network. This includes freight trains as well as passenger services operated by Sydney Trains and NSW Trains.

Incidents can cause delays to train services using the network. Rail freight can be the cause of, and experience the impact of, delays and incidents on the shared network. Exhibit 15 gives a detailed example of a rail freight delay that occurred on 22 March 2021.

## Exhibit 15: A rail freight delay on the shared metropolitan network

A long (1500m) train carrying general freight from Port Botany to Perth travels across multiple networks:

- ARTC (from Port Botany to Enfield)
- Sydney Trains (from Enfield to Lithgow)
- Country Rail Network (from Lithgow to Parkes)
- ARTC (from Parkes to Crystal Brook to Kalgoorlie)
- Arc Infrastructure (from Kalgoorlie to Perth).

On Monday 22 March 2021 a train on this route entered the Sydney Trains network at Enfield, heading to Lithgow.

However, the train was late presenting at the ARTC/Sydney Trains border. Instead of arriving at 23:23 pm as timetabled, it arrived at 0:01 am on Tuesday 23 March. The delay of 38 minutes meant that the train could not proceed on its scheduled path through the shared metropolitan rail network, so it was diverted to an ad hoc path by Sydney Trains Rail Operations Control.

The slow speed of this train caused further delays to two passenger services. At St Mary's one of the passenger trains was able to pass the freight train but the other could not and was further delayed.

The freight train reached the border with the Country Rail Network at 3:52 am instead of 3:06 am as timetabled - a delay of 46 minutes. The impact of this delay could create issues for the remainder of this train's journey to Perth but the Country Rail Network, ARTC and Arc Infrastructure are all outside of the scope of this audit.

Source: Audit Office of NSW research based on Sydney Trains data.

Sydney Trains collects information on the common causes of service incidents, such as:

- train problems
- signal, track or other rail infrastructure problems
- security issues (such as trespassers or anti-social behaviour)
- severe weather conditions
- station dwell times and the cumulative impact of delays on the passenger network.

While this audit did not assess the effectiveness of Sydney Trains' network maintenance responsibilities, Sydney Trains collects and report on network disruption as a key performance indicator.

For passenger rail services, Sydney Trains uses a key performance indicator, 'Lost Customer Minutes' as a measure of the impact of incidents. This information is reported to Sydney Trains' Customer Performance Improvement Group Board. Sydney Trains also analyses the causes of lost customer minutes, links them to incidents on the network and investigates the lines where they are most likely to occur.

Sydney Trains has started using a similar measure for freight delays. 'Lost Freight Minutes' represent the time lost when a freight train travels through the metropolitan shared rail network. Sydney Trains intends to use this measure as a key performance indicator, but this has yet to be formally endorsed by the Sydney Trains executive.



Between 1 July 2019 and 30 June 2021, 53,913 freight trains passed through the metropolitan shared rail network. Of these trains, more than half (53.8 per cent) were late leaving their point of origin. The average delay departing was 48 minutes and 26 seconds and the average delay at arrival was 42 minutes and 5 seconds. Sydney Trains was able to improve the performance of some freight trains as only 44.74 per cent of these trains arrived late, as illustrated in Exhibit 16 below.

**Exhibit 16: Departure and arrival times for freight trains on the metropolitan shared rail network between 1 July 2019 and 30 June 2021**

|                         | Departures    |               | Arrivals      |               |
|-------------------------|---------------|---------------|---------------|---------------|
|                         | Number        | %             | Number        | %             |
| On time                 | 1,416         | 2.63          | 1,501         | 2.78          |
| Early departure         | 23,492        | 43.57         | 28,295        | 52.48         |
| Late departure          | 29,009        | 53.80         | 24,121        | 44.74         |
| <b>Total</b>            | <b>53,917</b> | <b>100.00</b> | <b>53,917</b> | <b>100.00</b> |
| Healthy (+/- 5 minutes) | 8,959         | 16.62         | 9,631         | 17.86         |
| Unhealthy               | 44,958        | 83.38         | 44,286        | 82.14         |
| <b>Total</b>            | <b>53,917</b> | <b>100.00</b> | <b>53,917</b> | <b>100.00</b> |

Notes: On time departures and arrivals are those where the train arrived or departed at exactly the scheduled time. The classification of a train as healthy is based on whether it departs/arrives within +/- five minutes of the scheduled time.

Source: Audit Office of NSW analysis of Sydney Trains data (unaudited figures).

**Sydney Trains' management of incidents and delays generally prioritises passenger services over freight services**

Sydney Trains manages incidents as they occur on the network through the implementation of the Operations Protocol and its Network Incident Management Plan.

The Operations Protocol provides guidance on the actions Sydney Trains can take to resolve network issues. Under the Operations Protocol, Sydney Trains classifies individual rail services as either healthy or unhealthy. Healthy trains are trains that operate on schedule without issue. Sydney Trains considers a freight service healthy if it:

- presents to the network on-time (within five minutes of the scheduled time) and is able to operate to schedule
- is running late only due to causes within the Sydney Trains network that are outside the service operator's control
- is running on time, regardless of previous delays.

Sydney Trains does not classify all issues as incidents. For example, a delayed service that is unlikely to impact on other services is unlikely to be classified as an incident and would be managed in line with the requirements of the Operations Protocol.

The Operations Protocol describes 'path priority principles' used by Sydney Trains staff to minimise disruptions to passengers and downstream consequences to passengers and freight services. Appendix four describes the path priority principles used by Sydney Trains.

While the principles generally prioritise passenger services above freight services, the Operations Protocol also includes rules that prioritise healthy trains over unhealthy trains. As a result, freight services are generally disadvantaged when there is a disruption to the Sydney Trains network. Currently Sydney Trains staff seek to reduce the impact of this disadvantage to freight operators by finding alternate paths that meet the freight operator's specific needs within existing capacity. However, as demand for both passenger and freight paths grows, this will become increasingly difficult.

Refer to Appendix five for more information and examples of Sydney Trains' delay management.

**Sydney Trains assesses major incidents that occur on the network, but it does not routinely analyse the management of minor incidents or delays**

Sydney Trains' Network Incident Management Plan (NIMP) contains guidelines and procedures for incidents occurring on the Sydney Trains network. The NIMP supplements the Operations Protocols and provides organisational principles to inform Sydney Trains response to incidents. The NIMP describes three levels of incident based on severity which are detailed in Exhibit 17.

**Exhibit 17: Incident management framework response to incidents**

| Routine - Level 1  | Critical - Level 2                       | Crisis - Level 3                                   |
|--|--|--|
| Moderate customer impact                                   | Significant customer impact              | Major disruptions / incidents                      |
| Small number of services affected                          | Major train delays                       | Train collisions or derailments resulting in death |
| Short period of disruption                                 | Major impact on operations               | Major fires  |
| Full or partial line suspension for a short period of time | Fatality                                 | Multiple fatalities                                |
| Coordinated Sydney Trains Response                         | Train collision or derailment            | Terrorist attack                                   |
|  | Trains stranded for more than 30 minutes |  |

Source: Sydney Trains Network Incident Management Plan – 2021.

The NIMP provides guidance to Sydney Trains on what should occur after an incident. At the conclusion of a level 2 or level 3 incident Sydney Trains will conduct a 'hot debrief' with operational staff involved in managing the incident. The purpose of a hot debrief is to assess the response and to identify opportunities for improvement.

For especially complex, unique or serious incidents, Sydney Trains may also conduct a 'cold debrief' during the following week to facilitate a more in-depth discussion of the incident and response. Sydney Trains invites third-party operators (such as freight rail operators) to participate in cold debriefs. A cold debrief captures any lessons learnt and identifies issues that are to be followed up.

Sydney Trains assigns a single attributable fault to an incident. TfNSW and Sydney Trains staff review the attribution for accuracy. When fault is attributed to a third-party operator, TfNSW shares information on the incident with the relevant third-party operator. While this feedback is important, TfNSW rarely uses this information to initiate a performance discussion with the rail operator. In this context, operator underperformance could include:

- repeated delays caused by poor maintenance of locomotives or rolling stock
- trains arriving at their path that are heavier or longer than their allocated path allows
- trains not being on-time at the start of their allocated path.

As discussed earlier in this report, the current rail access contract has few mechanisms to improve operator performance.

Sydney Trains collects data on incidents, which it uses to conduct event-specific analysis. This analysis focuses on the causes of an incident and reviews the operational and management response to identify lessons learned. Sydney Trains also reports on network incidents and delays as part of its Key Performance Indicators to TfNSW.

However, Sydney Trains does not systematically collect data on, analyse or report on its management of rail-freight related delays or incidents. This limits Sydney Trains' ability to evaluate the effectiveness of its incident and delay mitigation strategies. Further, the systematic collection of incident data may provide insights into emerging risks or trends that could negatively impact network performance.

### **TfNSW does not consider information on past delays when it plans future timetables**

TfNSW are responsible for the development of the SWTT, which includes the allocation of 'spare paths' designed to assist Sydney Trains to manage delays if, and when, they occur. While Sydney Trains provides feedback on updates to the SWTT, Sydney Trains does not systematically collect or share information on previous delays (including trends in delay management). As a result, TfNSW is not able to use this information when developing future timetables.

## **Section two**

### Appendices

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# Appendix one – Responses from agencies

## Response from TfNSW and Sydney Trains



10 October 2021

Ms Margaret Crawford  
Auditor-General  
Audit Office of NSW  
GPO Box 12  
SYDNEY NSW 2000  
By email

Dear Ms Crawford

Thank you for the opportunity to respond to the Performance Audit Report (“the Report”) on Rail Freight and Greater Sydney. Transport for NSW (TfNSW) welcomes the Report, its findings, and recommendations. TfNSW is committed to improving the Transport cluster’s accountability and performance in this area. The Report provides TfNSW with valuable feedback for further improving the movement of rail freight in Greater Sydney.

Transport cluster agencies operate under a purchaser-provider model, as required by the *Transport Administration Act 1988* (s.2B(e)). The strength of the model is that it improves accountability and transparency through written contracts which clearly state the roles and responsibilities of the parties for achieving policy outcomes.

As the Report notes, several contractual agreements were signed in June 2021, between TfNSW, TAHE and Sydney Trains. These include the Licence, Agency and Maintenance (LAM) Deed between TAHE, TfNSW and Sydney Trains; and the Rail Operations Agreement between TfNSW and Sydney Trains.

I am advised that TAHE’s response to the Report outlines how it intends to use the LAM Deed procedures to address the relevant recommendations in the Report. TfNSW will work collaboratively with TAHE to finalise and implement these changes.

TfNSW will use the development of the Customer Service Standards, required under the Rail Operations Agreement, to address a number of the areas of concern identified by the Audit Office relevant to TfNSW and Sydney Trains.

The Customer Service Standards are intended to clearly articulate to Sydney Trains what TfNSW is purchasing from it on behalf of the NSW Government. TfNSW recognises that a clearer description of Sydney Trains’ role in meeting freight, as well as passenger objectives, would improve governance in this area and it is intended that the Customer Service Standards will include a Freight Level of Service (FLOS) specification that TfNSW expects Sydney Trains to deliver.

While initial scoping of this work had commenced, the Report provides valued guidance and input into that process. The FLOS will also include the actions expected by TfNSW from Sydney Trains for additional freight data gathering. This was an area of particular concern identified by the Report, recognising the importance of good data as a basis for developing effective benchmarks and performance requirements.

Importantly, the management and reporting on the Customer Service Standards will occur through the Contract Management Group (CMG) that was recently established.

This group has high-level representation from Sydney Trains, TfNSW's Customer, Strategy and Technology (CST) and Greater Sydney (GS) Divisions and will have a key role in monitoring progress against several of the findings and recommendations of the Report.

The CMG's accountability will be supplemented by quarterly Performance Review meetings involving the Deputy Secretary, Greater Sydney and Sydney Trains Chief Executive. The arrangements recognise that accountability for rail freight outcomes extends beyond TfNSW's Freight Branch.

Additional findings and recommendations will be addressed through the completion of the four freight strategy processes that TfNSW has commenced and are identified in the Report. These are:

- Review of the Freight and Ports Plan 2018-2023
- Freight Rail Strategy
- Port Efficiency Strategy
- Freight Data Strategy.

These will clarify and improve the Transport cluster's accountability for formulating and achieving the NSW Government's freight objectives. As the Report notes, clear rail freight accountabilities currently consist of the Port Botany target for rail mode share and the commitment to ensure no reduction in current capacity for rail freight. A more complete articulation of desired NSW Government freight objectives, the plans to meet the objectives, and measures of success, can be expected by December 2022. This will include the role of the mixed-use network in increasing the use of rail freight.

The regulatory instrument for rail freight access to the shared network, the NSW Rail Access Undertaking, is currently being reviewed by the Independent Pricing and Regulatory Tribunal (IPART). This will provide additional guidance to Transport agencies on the effective management of freight access to the Sydney Trains' network.

I am confident that this suite of actions will provide a robust response to the Report's findings and improve the Transport cluster's governance and accountability in this important area.

I enclose a more detailed response to the Report's recommendation and the actions we will be taking to implement them over the next 14 months.

Thank you to you and your team for the insights that the audit has provided. I look forward to updating you on our implementation of the recommendations.

Yours sincerely



**Rob Sharp**  
Secretary

**By June 2022, Transport for NSW should:**

- 1. Commit, as part of the review of Future Transport 2056, to delivering the freight-specific strategies currently in development and develop whole-of-cluster accountability for this work including:**
  - a) timeframes**
  - b) targets and key performance indicators**
  - c) governance arrangements, including respective roles and responsibilities.**

**Response:**

TfNSW will deliver measurable progress against the 4 freight specific strategies stated in the report by June 2022, with the inclusion of defined timelines and recommended initiatives to target outcomes noted in the audit findings. This will include a series of targets and performance indicators that are aligned with the policy objectives for rail freight sought by the NSW Government. Delivery of the strategies will also include a clear statement of the governance arrangements for allocating accountabilities for achieving the sought policy objectives, as well as clear targets and KPIs to be achieved.

TfNSW will also finalise the development of a Freight Level of Service (FLOS), that will be included as a component of the development of Customer Service Standards, as required under the Rail Operations Agreement between TfNSW and Sydney Trains. The FLOS will be the contractually agreed minimum level of services that Sydney Trains will provide to the rail freight industry, to achieve NSW Government rail policy objectives.

In developing the FLOS, TfNSW will systematically engage with end-users (freight operators and their customers), with the intent that the knowledge gathered will be turned into a clear planning, specification of the required services needed from Sydney Trains. The specification will include freight-specific performance measures to be achieved. Performance by Sydney Trains against the FLOS will be subject to the same provisions in the Rail Operations Agreement that deal with a "Material Breach" of the Customer Service Standards and be regarded as a non-compliance event requiring remedial actions.

As well as clearly stating the roles and responsibilities of Sydney Trains and TfNSW, the Rail Operations Agreement includes the establishment of a Contract Management Group (CMG), with the CMG to consist of the Executive Director for Public Transport Contracts & Partnerships (TfNSW), the Executive Director Freight (TfNSW) and the Executive Director Strategy Portfolio and Investment (Sydney Trains). Additional governance arrangements consist of Quarterly Performance Review Reporting, and oversight at Deputy Secretary level.

**By April 2022, Transport for NSW and Sydney Trains should:**

- 1. improve the collection and sharing of data to facilitate better analysis of train movements and to support future planning and policy decisions**
- 2. develop a specific plan to reduce the number of avoidable freight delays**
- 3. systematically collect data on its management of delays to rail-freight and incidents involving and/or impacting rail-freight (due October 2022)**

**Transport for NSW**

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**Response:**

The Rail Operations Agreement currently includes provisions that require Sydney Trains to assist TfNSW by the provision of data. This includes for comparison, benchmarking or performance studies, encompassing the development and updating of Customer Service Standards. TfNSW will liaise with Sydney Trains on the requirements for improved data collection on freight movements and provide clearer direction on what data should be collected in the future. As noted in the Report, TfNSW is currently undertaking a Freight Data Strategy, which will inform forward data requirements. TfNSW will seek to amend the Rail Operations Agreement if it does not currently provide sufficient direction on the data types and processes that it needs Sydney Trains to provide to enable future planning and policy decisions.

TfNSW and Sydney Trains suggest that the order of recommendations 3 and 4 be reversed in terms of being addressed. As the Report notes, Sydney Trains does not currently systematically collect and analyse data on its management of rail-freight related delays or incidents. It does this much more extensively for delays to passenger services. There are therefore currently data challenges in both determining the extent of the problem of freight trains experiencing delays on the Sydney Train's network, and the robustness of current evidence-base to guide any specific remedial actions or plans to address it. As the Report also notes, the available data presents a mixed picture, including indications that at least some freight trains make up on "off-network" delays once they gain entry to the Sydney Train's network. It is also likely that delays are experienced more by particular freight traffic (e.g. longer and heavier freight trains), and in particular locations.

TfNSW and Sydney Trains will therefore initially undertake a more detailed analysis of the impact of delays incidents on freight services, and the effectiveness of corrective actions taken by Sydney Trains to respond to such incidents. As the Report notes, the development of indicators that can more accurately measure both the delays and the effectiveness of any remedial actions may be required. Sydney Trains' trialling of "Lost Freight Minutes", as a companion indicator to "Lost Customer Minutes" will be helpful for this process. By first sourcing, collecting and analysing better data, which then informs the development of indicators of success, TfNSW and Sydney Trains will be in a position to develop, apply and evaluate specific plans to reduce freight delays.

**By April 2022, TAHE, Sydney Trains and Transport for NSW should:**

**4. Develop and implement key performance indicators for the inter-agency agreements between TAHE, TfNSW and Sydney Trains.****Response:**

TAHE is providing a separate response to the Audit Office on its intended use of procedures under the LAM Deed to provide clearer performance direction and expectations to its agents.

TfNSW will, through the development of the FLOS component of the Customer Service Standards for the Rail Operations Agreement, provide clear direction to Sydney Trains on its expected performance in this area. Under the Rail Operations Agreement, Sydney Trains is required to comply with, and implement the Customer Service Standards. TfNSW has commenced the process of developing the FLOS.

## Response from TAHE



Transport Asset  
Holding Entity

Our Ref: qA966984  
Your ref: D2119054/PA6668

12 October 2021

Ms Margaret Crawford  
Auditor-General  
Audit Office of NSW  
GPO Box 12  
SYDNEY NSW 2000

Dear Ms Crawford

Thank you for the opportunity to respond to the Performance Audit Report (“the Report”) on Rail Freight in Greater Sydney, dated 14 September 2021. The audit addressed the effectiveness of Transport for NSW (TfNSW), Sydney Trains and Transport Asset Holding Entity of NSW (TAHE) in improving the use of rail freight capacity in Greater Sydney, and to meet current and future freight demand.

TAHE as the asset owner, supports all efforts to increase the effective use of the metropolitan rail network and welcomes the NSW Auditor-General’s findings in addition to the five recommendations outlined in the Report.

TAHE’s Operating Licence granted by the Minister for Transport and Roads requires that TAHE must have in place arrangements with Sydney Trains, NSW Trains and third party operators for the control and effective management of the rail networks. The inter-agency arrangements for the management of freight rail capacity are subject to the Licence Agency and Maintenance (LAM) Deed entered into by TAHE, TfNSW, NSW Trains and Sydney Trains, on 1 July 2021.

The LAM Deed addresses the following requirements:

- Sydney Trains to act as TAHE’s accredited agent undertaking the management and delivery of access to rolling stock and freight rail operators on the metropolitan rail network; and
- TfNSW, in addition to its strategic and planning transport role, to operate as TAHE’s agent for the provision of freight and rail access and the management of access agreements with freight rail operators in respect of the metropolitan network.

TfNSW and Sydney Trains as TAHE’s agents have been nominated by the Auditor General to undertake Recommendations One to Four within the Report. TAHE is committed to supporting both TfNSW and Sydney Trains in the execution and effective implementation of these recommendations.

Recommendation Five requires TAHE, TfNSW and Sydney Trains to develop and implement key performance indicators for the inter-agency agreements between TAHE, TfNSW and Sydney Trains by April 2022.

---

Transport Asset Holding Entity (TAHE) NSW  
470 Pitt Street, Haymarket NSW 2000  
T 1300 234 987 | W [www.tahensw.com.au](http://www.tahensw.com.au) | ABN 59 325 778 353

The LAM Deed as the inter-agency agreement, foreshadowed the need for governance and reporting arrangements, outlined in Clauses 17 and 18 of the deed. The deed provides for the governance and reporting frameworks necessary to develop and implement key performance indicators for the delivery and management of network access to rolling stock and rail freight operators.

TAHE will use the governance provisions within the LAM Deed to lead the development and implementation of key performance indicator reporting requirements in collaboration with TfNSW and Sydney Trains by April 2022.

TAHE will further apply its asset management and assurance framework to gain positive declaration that the performance indicators are fit for purpose and remain effective in improving the use of rail freight capacity in Greater Sydney.

TAHE appreciates the Auditor General's performance feedback and will positively use this information to strengthen business processes as our organisation develops and matures.

Thank you to you and your team for the insights that the audit has provided. I look forward to sharing with you the inter-agency key performance indicators and our progress on the implementation of these valuable recommendations.

If you have any further questions or would like additional information, Peter Crimp Executive General Manager Finance and Business Performance would be pleased to take your call.

Yours sincerely

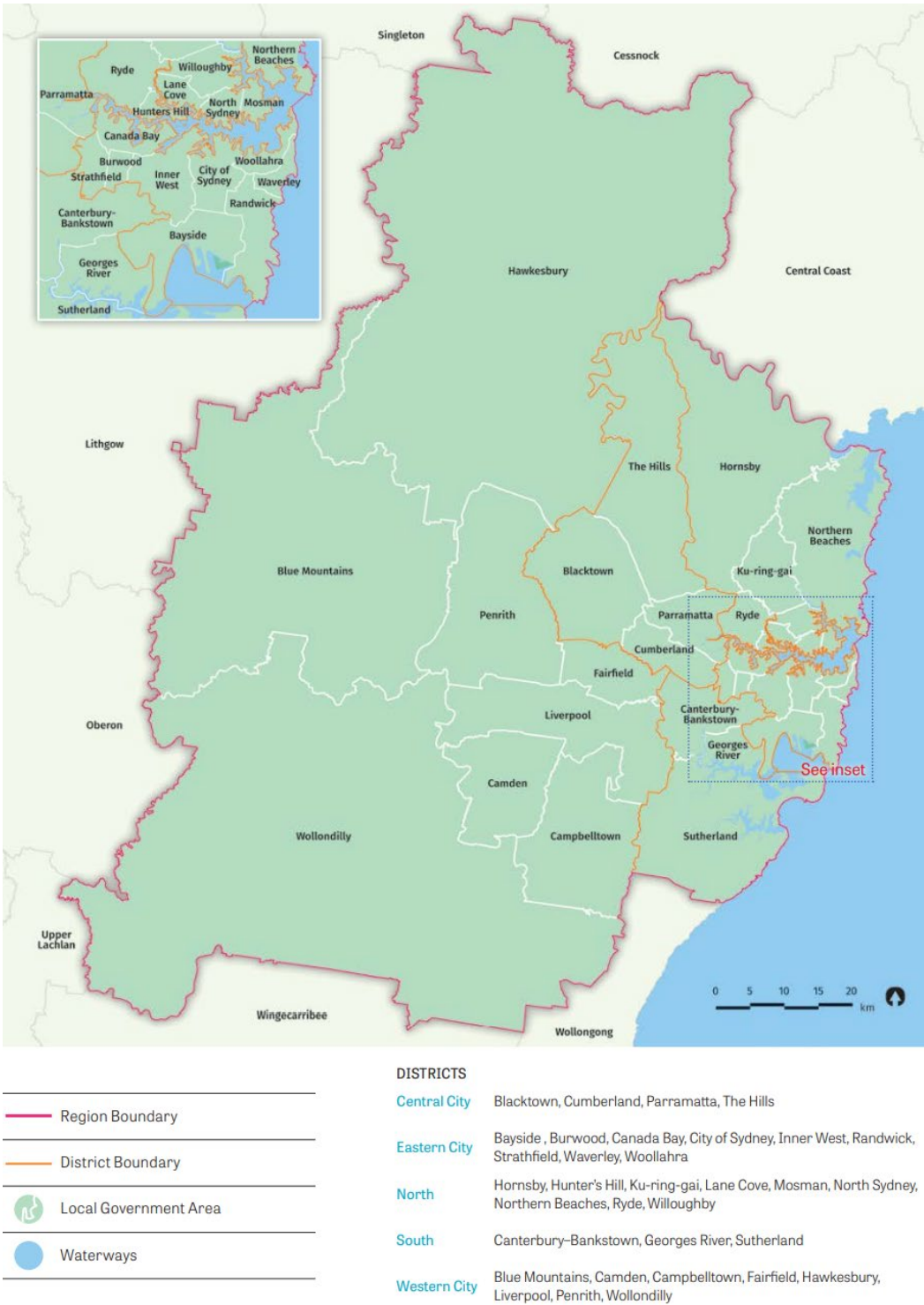
**Benedicte Colin**

Chief Executive Officer

# Appendix two – The Greater Sydney region

Greater Sydney is comprised of 33 local government areas which are grouped into five regions. Exhibit 18 shows these five regions and lists the councils that lie in each one.

**Exhibit 18: Greater Sydney regions and local government areas**



Source: Greater Sydney Commission, Greater Sydney Region Plan 2018.

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## Appendix three – TfNSW strategic projects

As noted in section 2.1 above, TfNSW's freight branch is working on four strategic projects.

### Review of the Freight and Ports Plan

TfNSW advises that its review of the Freight and Ports Plan is due for completion by the end of 2021. The review will cover both the Plan and the Freight and Ports Plan Implementation Plan and includes:

- understanding the intention of the Plan, including deliverables, targets, objectives and desired outcomes
- evaluating the alignment of the initiatives to the objectives and desired outcomes
- identifying the current state of delivery against the Plan
- providing advice and recommendations in relation to:
  - an evidence base for current freight strategies, and identifying any deficiencies
  - delivery against the Plan
  - a framework for tracking and reporting implementation of the Plan
  - alignment with current NSW Government vision and objectives
  - key learnings.

TfNSW intends to deliver all of the necessary work using in-house resources and will fund any external work as part of other projects in the freight branch.

### Development of a Freight Rail Strategy

This project is in early stages of development, and TfNSW have defined the service need for this project. The Gate 0 documents for this project note that TfNSW's current plans for freight (Future Transport 2056 and the Freight and Ports Plan) contain a single measure of success and that this, along with the high-level actions outlined in the Plan, are insufficient to drive improvements in rail freight outcomes without more being done.

TfNSW proposes to develop this strategy in four stages between March 2022 and April 2023. These stages are focused on:

- improving the sustainability, safety and efficiency of rail freight to and from Port Botany
- collaboration between government and industry to ensure that the benefits of Inland Rail are realised
- managing non-containerised freight (such as coal, grain, steel and building materials) within Greater Sydney.
- integrating the three above stages into one strategy by April 2023.

TfNSW has not yet determined the implementation timeframe or intended outcomes for the strategy, although TfNSW reports that they are taking an iterative approach and some recommendations and initiatives will be developed during 2022.

## Development of a Port Efficiency Strategy

TfNSW is developing a Port Efficiency Strategy to support supply chain and infrastructure resilience to enable the safe, productive and sustainable movement of goods through ports in New South Wales. TfNSW intends to develop the strategy in four stages, for completion in December 2022. The four stages are focused on:

- the movement of containerised freight through Port Botany, including whether existing infrastructure is sufficient to meet projected containerised freight volumes
- the movement of bulk goods and liquids through Port Botany and Sydney Harbour and their integration into the supply chain and transport network
- the movement of goods through the Port of Newcastle, Port Kembla, Port of Eden and Port of Yamba and the future uses of these ports
- integrating these stages into one strategy by December 2022.

## Development of a Freight Data Strategy

TfNSW noted that the Plan identified a 'lack of data on freight' as an issue and committed to rectifying this problem by:

- publishing and update freight forecasts and performance measure data
- enhancing freight data
- improving data sharing.

The Freight Data Strategy is intended to assist deliver on these commitments by identifying risks and opportunities for improving freight data, and particularly about increasing visibility of the supply chain.

TfNSW completed the investment brief for this project in August 2021 and development of the strategy is due for completion by December 2022. TfNSW has identified access to standardised freight supply chain data as a significant risk factor for this project as much of the data is owned by external stakeholders, such as the freight industry, who may be unwilling to share it for commercial reasons.

## Appendix four – Sydney Trains path priority principles

As noted in section 4.2 above, the Operations Protocol contains a set of 'path priority principles'. These principles are used by TfNSW to minimise disruptions to passengers and freight services during delays and incidents. There are different path priorities for weekdays and weekends as illustrated in Exhibits 19 and 20.

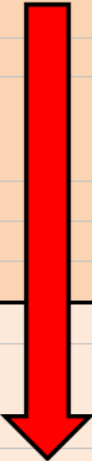
**Exhibit 19: Path priority matrix - Weekdays**

| Order of priority  | Period        | Time                                   | Service type   |
|--|---------------|--|--|
|  | Peak          | 06:00 - 10:00                          | Timetabled Limited stop peak Passenger Services                    |
|  |               | 15:00 - 19:00                          | Regional Passenger Services and Freight Priority Services          |
|  |               |  | Frequent-stop peak Passenger Services                              |
|  |               |  | Timetabled Empty Passenger service forming other 'peak' trains     |
|  |               |  | Late running Passenger Services                                    |
|  |               |  | Non-timetabled Empty Passenger service forming other 'peak' trains |
|  |               |  |  |
|  |               |  | Timetabled Freight services  |
|  |               |  | Other Empty Passenger services                                     |
|  |               |  |  |
|  | Shoulder Peak | 04:00 - 06:00                          | Timetabled Limited stop peak Passenger Services                    |
|  |               | 09:00-10:00 (in contra-peak direction) | Regional Passenger Services and Freight Priority Services          |
|  |               |  | Frequent-stop peak Passenger Services                              |
|  |               |  | Timetabled Empty Passenger service forming other 'peak' trains     |
|  |               | 14:00-15:00                            | Non-timetabled Empty Passenger service forming other 'peak' trains |
|  |               | 19:00-22:00                            |  |
|  |               |  | Timetabled Freight Services  |
|  |               |  | Mechanised Track Patrol  |
|  |               |  | Other Freight Services   |
|  |               |  | Non-timetabled Empty Passenger Services                            |
|  | Intra-Peak    | 10:00 - 14:00                          | Regional Passenger Services and Freight Priority Services          |
|  |               |  | Timetabled Limited stop Passenger Services                         |
|  |               |  | Mechanised Track Patrol  |
|  |               |  | Other Timetabled Passenger Services and Peak Positioning movements |
|  |               |  |  |
|  |               |  | Timetabled Freight Services  |
|  |               |  | Other Freight Services   |
|  |               |  | Non-timetabled Empty Passenger Services                            |
|  |               |  | Track machinery (note criticality if for possession)               |
|  |               |  |  |
|  | Off peak      | 22:00 - 04:00                          | Freight Services   |
|  |               |  | Timetabled Passenger Services                                      |
|  |               |  | Passenger Positioning Movements                                    |
|  |               |  | Non-timetabled Empty Passenger Services                            |
|  |               |  |  |
| Lowest   |               |  | Track machinery (note criticality)                                 |

Source: TfNSW Operations Protocol - May 2021.



## Exhibit 20: Path priority matrix - Weekends

| Order of priority   | Period           | Time                         | Service type  |
|---|------------------|------------------------------|---|
|  | Weekend Peak     | 06:00 - 19:00<br>(Sat & Sun) | Regional Passenger Services and Freight Priority Services             |
|   |                  |                              | Timetabled Limited stop Passenger Services                            |
|   |                  |                              | Other Timetabled Passenger Services                                   |
|   |                  |                              | <i>Timetabled Empty Passenger service forming other 'peak' trains</i> |
|   |                  |                              | Freight Services  |
|   |                  |                              | Non-timetabled Empty Passenger Services                               |
|   |                  |                              | Track machinery (note criticality if for possession)                  |
|   | Weekend Off Peak | 21:00 (Fri) – 06:00<br>(Sat) | Freight Services  |
|   |                  |                              | Timetabled Passenger Services   |
|   |                  | 19:00 (Sat)- 06:00<br>(Sun)  | Passenger Positioning Movements                                       |
|   |                  |                              | Non-timetabled Empty Passenger Services                               |
| Lowest  |                  | 19:00 (Sun)- 04:00<br>(Mon)  | Track machinery (note criticality)                                    |

Source: TfNSW Operations Protocol - May 2021.

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# Appendix five – Sydney Trains delay management

As noted in section 4.2 above, Sydney Trains classifies trains as either healthy or unhealthy. Healthy trains are those that operate on schedule without issue. The criteria for managing healthy trains during in a delay are shown in Exhibit 21.

## Exhibit 21: Management of healthy trains in a delay

| Rule | Criteria   |
|------|--|
| 1    | <p>A healthy train should be managed such that it will exit on-time.</p> <p>If a healthy train is running late, it should be given equal preference to other healthy trains and advanced wherever possible to regain lost time. Any delay to other healthy trains as a result of such advancement must be kept to a minimum as defined in Rule 2.</p>  |
| 2    | <p>The following delay limits apply to the full journey of a healthy train being held back:</p> <ul style="list-style-type: none"><li>• The delay to the individual rail passenger service held back does not exceed three minutes</li><li>• There is a plan in place to recover lost time so that the downstream effect on the service held back and on individual subsequent passenger services also does not exceed three minutes</li><li>• The delay to a freight service held back does not exceed five minutes</li><li>• There is a plan in place to recover lost time so that the downstream effect on the healthy freight service held back and on individual subsequent healthy freight services also does not exceed five minutes.</li></ul> |
| 3    | <p>Give preference to train where train performance indicates it will lose least or no more time and even make up time and hold the gain; and consider downstream effect to minimise overall delay</p>   |
| 4    | <p>Give preference to the on-time train. A late train may be given preference subject to the delay to the late train being kept to a minimum as defined in Rule 2.</p>   |
| 5    | <p>High priority train has preference, subject to Rule 3.</p> <p>If in an off-peak period where a passenger and freight service are running late, the faster running service will take priority</p>  |
| 6    | <p>A healthy train should be given preference over an unhealthy train. An unhealthy train may be given preference over a healthy train provided the delay to that train is kept to a minimum as defined in Rule 2.</p>   |

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Source: TfNSW Operations Protocol - May 2021.

Here we present four examples of Sydney Trains managing an incident with differing levels of complexity and attribution.

**Example 1: A minor incident that does not impact any other services**

A freight train enters the Sydney Train network on time and has no reported issues with the locomotive or any of the wagons. The Sydney Trains' Train Running Information Management System (TRIMS) automatically classifies this train as a healthy train.

A short while later the train's internal systems detect an issue with its brakes and the train slows down to a safer speed. The train will not be able to maintain its schedule and TRIMS now classifies it as late.

The Train Service Duty Manager (TSDM) for freight on duty notices that the train is running behind schedule and decides that this is an issue worth reporting to the Network Incident Manager (NIM), who classifies this situation as a Routine (Level 1) incident as it is taking place during an off-peak period, and will delay the train by 20 – 30 minutes. The NIM creates a rail operation incident record in the Sydney Trains rail emergency management (REM) system.

The NIM gives a Train Control Notice to the operator requiring them to take a new path so that it does not impact on the running of other trains on the network. The operator complies and alters the path.

The train reaches its final destination 25 minutes late but does not impact any other train on the network.

**Example 2: A freight train breakdown causing additional impacts to the network**

A freight train is heading south on the Sydney Trains Illawarra line when the locomotive starts to have issues and slows down.

The train operator calls the train control staff at Sydney Trains and informs them of the issue. The train controller then directs the train to come to an immediate halt.

The train controller at Sydney Trains informs the NIM who decides that this is a Critical (Level 2) incident due to the impact it will have on both customers and the network. The NIM escalates this incident to Duty Control Manager and informs them that there may be a flow on impact to other trains on the network.

After further investigations, both passenger and freight trains are cancelled by the NIM around the Illawarra line.

The train operator informs the NIM that there is a problem with one of the locomotive's engines. The train crew assess the situation and determine that the train cannot continue, and so it is deemed a failure.

The NIM diverts a nearby freight train to assist, and the train is moved to a nearby siding. Passenger trains are restarted and prioritised in line with the Operations Protocol Priority Matrix. The NIM creates a rail operation incident record in the REM system.

The Performance Investigation team investigates and assigns all impacted timetabled passenger trains to this REM incident record in the Train Location System - On Time Running application (TLS-OTR ). This includes the:

- incident cause (attribution)
- delay minutes
- number of other trains that were delayed
- incident and service management responses required to resolve the incident (if recorded).

The delays experienced by the passenger trains will be attributed to the breakdown of the freight train. After the incident is resolved, there is a hot debrief to review the management of the incident.

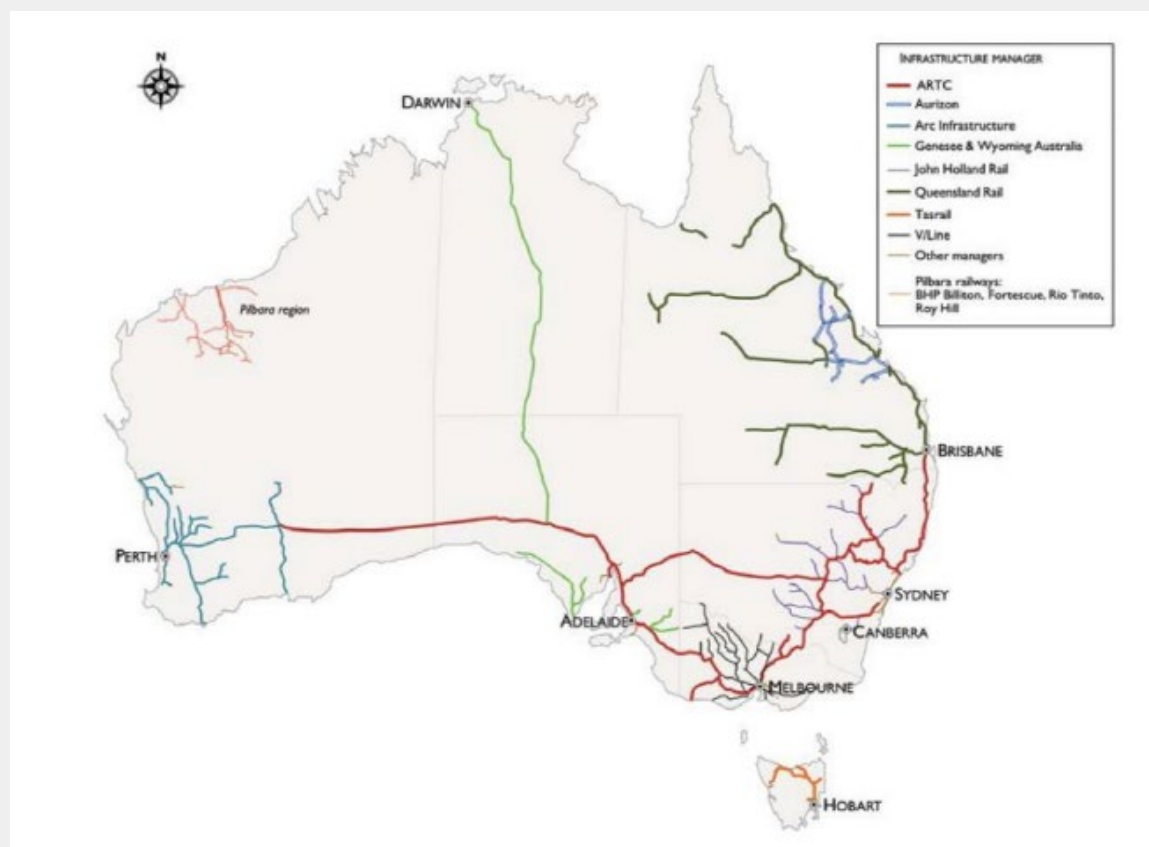
### Example 3: An interstate freight train presenting late at the network border

A train leaves Perth heading to Port Botany. As the train crosses the country, it will pass through the following rail networks:

- Arc Infrastructure (from Perth to Kalgoorlie)
- ARTC (from Kalgoorlie to Crystal Brook to Parkes)
- Country Rail Network (from Parkes to Lithgow)
- Sydney Trains (from Lithgow to Lidcombe)
- ARTC from (Lidcombe to Port Botany).

This Australian rail network is shown in Exhibit 22 below.

### Exhibit 22: Australian rail networks by infrastructure owner



Source: Transport and Infrastructure Council - National freight and supply chain strategy - Supporting paper No 3 - 2018

Every time the train changes networks it must adhere to a pre-determined border entry time. When entering the Sydney Trains network, a train is automatically considered unhealthy if it does not present on time.

The interstate train presents at the border to the Sydney Trains network two hours behind schedule and cannot continue on its timetabled path. Sydney Trains cannot allow the train to continue as originally timetabled as it would negatively impact other services on the network. Instead, it will be managed as best as possible through the network according to the Train Pathing Priorities (see Appendix 4).

The train's original path would have been before peak time but now it is too late for it to pass through the Sydney Trains network without impeding passenger trains travelling during the peak. Sydney Trains instructs the freight train to wait at Lithgow until the peak period has passed. Once the peak is over, the TSDM for freight, in consultation with the freight operator's crew and the ROC's live run team, plot out a new path and issue a new Train Control Direction to the rail operator. The operator complies and the train follows its the new path to its destination.

The NIM creates a rail operation incident record in the REM system.

The Performance Investigation team investigates and assigns all impacted timetabled passenger trains to this REM incident record in the TLS-OTR. This includes the:

- incident cause (attribution)
- delay minutes
- number of other trains that were delayed
- incident and service management responses required to resolve the incident (if recorded).

Operational managers from Sydney Trains and Transport for NSW meet every day at 8:00am for a Customer Performance Review meeting to discuss the previous day's incidents. The Performance Team create a Post Peak and Daily Performance report for these meetings including the most important incidents from the previous day. This incident is included in the report for the next day's meeting where it is discussed, reviewed and it is determined that no further investigation is required.

#### **Example 4: A freight train is impacted by another incident on the network**

A train is carrying goods from Port Botany and is heading to far western New South Wales via the Sydney Trains network.

As the freight train travels through the Sydney Trains network, there is a fatality involving a passenger train at a nearby station. A fatality is classified as a Critical (Level 2) incident.

In response to this incident all nearby services, including the freight train, are shut down.

One hour later, the lines are reopened and the freight train operator is told to proceed through to its final destination. Due to the delay and the time required to restart the freight train, it is more than two hours late leaving the Sydney Trains network. Passenger trains behind the freight train will also be delayed by both the original incident and the extra time required to restart the freight train and get it up to speed again.

The NIM creates a rail operation incident record in the REM system.

The Performance Investigation team investigates and assigns all impacted timetabled passenger trains to this REM incident record in the TLS-OTR. This includes the:

- incident cause (attribution)
- delay minutes
- number of other trains that were delayed
- incident and service management responses required to resolve the incident (if recorded).

The delays experienced by the passenger trains could be attributed to the original incident, the time taken restart the freight train or both depending on how the information is entered into the REM system and how the delay is described.

In this case, as the incident is critical, there would be a hot debrief and it also would be discussed at the Customer Performance Review meeting the following morning. A decision would then be made about whether a cold debrief would be needed as well.

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# Appendix six – About the audit

## Audit objective

This audit assessed whether transport agencies are effectively improving the use of rail freight capacity in Greater Sydney.

## Audit criteria

We addressed the audit objective with the following audit criteria:

1. Are transport agencies are monitoring the access to shared rail lines?
2. Are transport agencies are effectively managing avoidable delays for rail freight movements in Greater Sydney?
3. Are transport agencies increasing the use of rail freight capacity in Greater Sydney?

## Audit scope and focus

In assessing the criteria, we checked the following aspects:

1. freight movements within Greater Sydney
2. processes to plan, undertake and monitor initiatives on the movement of freight
3. processes to collect validate, assess, evaluate, analyse and/or monitor the performance of the movement of freight in New South Wales
4. the analysis of data on performance measures and other outcomes.

This audit focused on:

- freight movements within Greater Sydney
- processes to plan, undertake and monitor initiatives on the movement of freight
- processes to collect validate, assess, evaluate, analyse and/or monitor the performance of the movement of freight in New South Wales
- the analysis of data on performance measures and other outcomes.

## Audit exclusions

The audit did not:

- examine freight movements using shipping, airlines and pipelines as the primary means of transporting goods
- examine the duplication of the Port Botany rail line
- question the merits of Government policy objectives.

## Audit approach

Our procedures included:

1. Interviewing:
  - relevant staff in the transport agencies
  - stakeholders, industry reference groups and other representatives.
2. Examining:
  - a) legislation, government policies, directions and regulations relating to transport agencies role in managing, monitoring and improving rail freight capacity in Greater Sydney
  - b) the transport agencies strategies, plans, policies, reports, and procedures for managing, monitoring and improving rail freight capacity in Greater Sydney
  - c) any relevant data pertaining to the capacity and efficiency of the freight rail network and shared networks
  - d) internal audits or reports produced by other bodies / agencies on relevant topics.
3. Analysing:
  - a) relevant data pertaining to the performance of rail freight in Greater Sydney
  - b) relevant data pertaining to the use of shared rail lines in Greater Sydney
  - c) relevant data pertaining to the capacity and pricing of shared rail lines in Greater Sydney and third-party access to these lines.

The audit approach was complemented by quality assurance processes within the Audit Office to ensure compliance with professional standards.

## Audit methodology

Our performance audit methodology is designed to satisfy Australian Audit Standard ASAE 3500 Performance Engagements and other professional standards. The standards require the audit team to comply with relevant ethical requirements and plan and perform the audit to obtain reasonable assurance and draw a conclusion on the audit objective. Our processes have also been designed to comply with requirements specified in the *Public Finance and Audit Act 1983* and the *Local Government Act 1993*.

## Acknowledgements

We gratefully acknowledge the co-operation and assistance provided by Transport for NSW, Sydney Trains and the Transport Asset Holding Entity. In particular, we wish to thank our liaison officers and staff who participated in interviews and provided material relevant to the audit.

We would also like to thank other stakeholders that spoke to us and provided material during the audit.

## Audit cost

Including staff costs, travel and overheads, the estimated cost of the audit is \$442,770



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# Appendix seven – Performance auditing

## What are performance audits?

Performance audits determine whether state or local government entities carry out their activities effectively, and do so economically and efficiently and in compliance with all relevant laws.

The activities examined by a performance audit may include a government program, all or part of an audited entity, or more than one entity. They can also consider particular issues which affect the whole public sector and/or the whole local government sector. They cannot question the merits of government policy objectives.

The Auditor-General's mandate to undertake performance audits is set out in section 38B of the *Government Sector Audit Act 1983* for state government entities, and in section 421B of the *Local Government Act 1993* for local government entities.

## Why do we conduct performance audits?

Performance audits provide independent assurance to the NSW Parliament and the public.

Through their recommendations, performance audits seek to improve the value for money the community receives from government services.

Performance audits are selected at the discretion of the Auditor-General who seeks input from parliamentarians, state and local government entities, other interested stakeholders and Audit Office research.

## How are performance audits selected?

When selecting and scoping topics, we aim to choose topics that reflect the interests of parliament in holding the government to account. Performance audits are selected at the discretion of the Auditor-General based on our own research, suggestions from the public, and consultation with parliamentarians, agency heads and key government stakeholders. Our three-year performance audit program is published on the website and is reviewed annually to ensure it continues to address significant issues of interest to parliament, aligns with government priorities, and reflects contemporary thinking on public sector management. Our program is sufficiently flexible to allow us to respond readily to any emerging issues.

## What happens during the phases of a performance audit?

Performance audits have three key phases: planning, fieldwork and report writing.

During the planning phase, the audit team develops an understanding of the audit topic and responsible entities and defines the objective and scope of the audit.

The planning phase also identifies the audit criteria. These are standards of performance against which the audited entity, program or activities are assessed. Criteria may be based on relevant legislation, internal policies and procedures, industry standards, best practice, government targets, benchmarks or published guidelines.

At the completion of fieldwork, the audit team meets with management representatives to discuss all significant matters arising out of the audit. Following this, a draft performance audit report is prepared.

The audit team then meets with management representatives to check that facts presented in the draft report are accurate and to seek input in developing practical recommendations on areas of improvement.

A final report is then provided to the head of the audited entity who is invited to formally respond to the report. The report presented to the NSW Parliament includes any response from the head of the audited entity. The relevant minister and the Treasurer are also provided with a copy of the final report. In performance audits that involve multiple entities, there may be responses from more than one audited entity or from a nominated coordinating entity.

## **Who checks to see if recommendations have been implemented?**

After the report is presented to the NSW Parliament, it is usual for the entity's audit committee to monitor progress with the implementation of recommendations.

In addition, it is the practice of Parliament's Public Accounts Committee to conduct reviews or hold inquiries into matters raised in performance audit reports. The reviews and inquiries are usually held 12 months after the report received by the NSW Parliament. These reports are available on the NSW Parliament website.

## **Who audits the auditors?**

Our performance audits are subject to internal and external quality reviews against relevant Australian and international standards.

The Public Accounts Committee appoints an independent reviewer to report on compliance with auditing practices and standards every four years. The reviewer's report is presented to the NSW Parliament and available on its website.

Periodic peer reviews by other Audit Offices test our activities against relevant standards and better practice.

Each audit is subject to internal review prior to its release.

## **Who pays for performance audits?**

No fee is charged for performance audits. Our performance audit services are funded by the NSW Parliament.

## **Further information and copies of reports**

For further information, including copies of performance audit reports and a list of audits currently in-progress, please see our website [www.audit.nsw.gov.au](http://www.audit.nsw.gov.au) or contact us on 9275 7100.

## OUR VISION

Our insights inform and challenge government to improve outcomes for citizens.

## OUR PURPOSE

To help Parliament hold government accountable for its use of public resources.

## OUR VALUES

Pride in purpose

Curious and open-minded

Valuing people

Contagious integrity

Courage (even when it's uncomfortable)

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