

# Queensland Rail train crewing practices **commission of inquiry**



**Final Report**

31 January 2017

## Queensland Rail Train Crewing Practices Commission of Inquiry

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31 January 2017

The Honourable Anastacia Palaszczuk MP  
Premier and Minister for the Arts  
1 William Street  
Brisbane, Queensland 4000

Dear Premier

In accordance with the *Commissions of Inquiry Order (No. 2) 2016* (Qld), I have completed my inquiries into the train crew shortfall that resulted in the disruptions to the Citytrain network in late 2016.

I hereby present the report of the Queensland Rail Train Crewing Practices Commission of Inquiry, detailing:

- Circumstances leading up to and associated with the disruptions to the Citytrain network in late 2016
- An account of Queensland Rail's recovery actions
- A comprehensive review of underlying issues and associated recommendations.

Over the past four months, the people of South East Queensland have had to endure significant interruptions to their daily commutes, which have understandably eroded some of their confidence in Queensland Rail. I believe this report will assist with efforts to understand and recover from these issues.

I also believe the recommendations in this report will support the successful delivery of major projects on the horizon, including the full integration of the New Generation Rollingstock, new infrastructure and services for the Commonwealth Games in 2018, the introduction of the European Train Control System by 2021 and the commissioning of the Cross River Rail project by 2023.

I would like to acknowledge and thank those who have contributed to the Commission through attending interviews and providing data and documents. I would particularly like to thank the staff of Queensland Rail for providing information to the Commission while continuing to provide critical public transport services to its customers.

Finally, I would like to thank the Commission team for their dedication and professionalism in undertaking the work of the Commission.

Yours sincerely



Phillip Strachan

**Commissioner**



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## Executive summary

### Introduction

On 27 October 2016, the Premier and Minister for the Arts (the **Premier**) announced an investigation into Queensland Rail's train crewing practices, following a series of disruptions to the Citytrain network. This investigation was formally constituted as a Commission of Inquiry (the **Commission**) on 24 November 2016.

This report details the findings of the Commission, developed through 102 interviews with key stakeholders and analysis of available data and documents.

The report is organised into four key sections:

- Introduction, describing the terms and investigative process followed by the Commission
- Timeline of events, providing a descriptive account of events surrounding the disruptions
- Recovery efforts, outlining and assessing Queensland Rail's recovery efforts
- Underlying issues and recommendations, detailing the Commission's view of what ultimately caused the disruptions and how best to address these issues.

### Timeline of events

Queensland Rail has a long and proud history of providing public transport services in South East Queensland through the Citytrain network. To cater for a growing population, this network has been significantly expanded in recent years, including the addition of the Redcliffe Peninsula Line in 2016, which added a further 6 stations and 12.6 kilometres of track to the network.

The Redcliffe Peninsula Line was officially integrated into the network on 4 October 2016. This necessitated the introduction of a new timetable, which increased the number of weekly services across the network by 9 per cent to 8,290.

Three days later, on 7 October 2016, Queensland Rail formally advised the Minister for Transport and the Commonwealth Games (the **Minister for Transport**) and the Treasurer, Minister for Aboriginal and Torres Strait Islander Partnerships and Minister for Sport (the **Treasurer**) (together, the **Responsible Ministers**) that it expected a shortfall of drivers and guards "over the next few weeks" and that customers may experience delays as a result.<sup>1</sup>

Over the following weeks, there were large scale disruptions across the network, culminating in the cancellation of 167 services on 21 October 2016, which was 12 per cent of scheduled services.<sup>a</sup> The cancellations were driven primarily by the triggering of compulsory rest periods for train crew.

This was followed by the resignation of both the Chair and the Chief Executive Officer of Queensland Rail, the introduction of an interim timetable with fewer services and the announcement of a comprehensive recovery plan.

While performance appeared to stabilise in November and early December 2016, Queensland Rail experienced further train crew shortfalls during the lead up to the Christmas period, culminating in the cancellation of 261 services on Christmas Day 2016, which was 36 per cent of scheduled services. Three days later, the Chief Operating Officer announced his retirement.

<sup>a</sup> References to cancellations include totally cancelled and partially cancelled services. A partially cancelled service refers to a service that partially completed its planned route.

Throughout this period, customers have remained resilient and continued to use the network, despite ongoing disruptions to their daily lives. This highlights how important passenger rail services are to the people of South East Queensland, and emphasises the need to recover operations, ensuring that passengers arrive safely and reliably at their destinations going forward.

### Recovery efforts

Since October 2016, Queensland Rail has focussed its recovery efforts on stabilising services, including:

- Revising the network timetable on five different occasions, reducing the number of weekly services by 6 per cent against the 4 October 2016 timetable
- Negotiating increased flexibility around key crewing rules, which govern rostering practices and shift activities such as meal breaks, thereby reducing the demand for train crew
- Establishing a dedicated senior team to lead the longer-term recovery program.

Queensland Rail is also taking significant steps to address the five-point plan outlined in the Commission's terms of reference (the **five-point plan**). The five-point plan involves:

- Progressing recruitment and training of an additional 200 drivers and 200 guards
- Forecasting and managing longer-term demand and supply of train crew
- Improving recruitment practices
- Ensuring the sustainability of the interim timetable
- Returning to the full timetable when possible.

The Commission believes the above demonstrates that Queensland Rail appreciates the severity of the situation and is working hard to recover operations. Even with this focus, Queensland Rail only expects to recover full timetabled services by late 2018, which is not likely to meet public expectations. Furthermore, Queensland Rail is yet to finalise plans to address underlying organisational and governance issues, which will be critically important to ensure similar issues do not arise again or in other parts of the organisation.

In the sections below, the Commission summarises its analysis of the underlying issues, and provides recommendations to complement and extend the initial response from Queensland Rail.

### Underlying issues

The issues causing the disruptions to the Citytrain network have compounded and grown over time. The Commission has identified four underlying issues.

First, demand for train crew increased significantly between 2014 and 2016 due to the compounding impact of:

- Timetable changes and major project requirements, including a 9 per cent increase in weekly services<sup>b</sup>
- A coinciding 7 per cent drop in train crew productivity, due in part to more restrictive crewing rules agreed between unions and Queensland Rail's management.

<sup>b</sup> The number of services increased by 9 per cent between the timetable introduced on 20 January 2014 and the timetable introduced on 4 October 2016.

Second, the supply of qualified drivers declined by 4 per cent over the same period, reaching 471 drivers in December 2016. This was a result of:

- Queensland Rail preferring to operate with a 5 to 10 per cent undersupply of train crew, driven largely by a practice of providing overtime opportunities
- Continued restrictions on the ability to recruit train crew externally, which increased the burden of recruitment and depleted guard ranks
- Management decisions to reduce training staff and halt driver training intakes between February 2014 and February 2015
- Driver training taking 18 months on average, which is substantially longer than comparable organisations and the stated beliefs of Queensland Rail executives at the time.

Third, while the gap between supply and demand grew to more than 100 drivers, people and process limitations meant this shortfall was not widely understood across the organisation:

- The Train Service Delivery team was focussed on short-term operations and did not sufficiently recognise or escalate longer-term issues
- The Operations chain of command did not provide sufficient active oversight nor resolutely act upon emerging issues
- The Chief Executive Officer was not appropriately informed of emerging issues, relied on risk management processes that were not properly applied and did not actively investigate whether adequate measures were being taken
- The Board was not appropriately informed about the risk and hence did not report this to the Government or public
- A culture within the Operations team of relying on intuition, complacency and being reluctant to share bad news suppressed the identification, escalation and resolution of issues.

Fourth, Queensland Rail's vast remit, and its complex and unclear governance arrangements, made it difficult for the Chief Executive Officer to maintain effective oversight of operations.

## Recommendations

The Commission makes 36 recommendations to Queensland Rail and the Government to address these issues. These recommendations are grouped according to the four underlying issues.

### **Demand: Ensure total demand for train crew is well understood and managed**

Queensland Rail should:

1. Develop a comprehensive five-year rolling monthly forecast of demand and supply for train crew. This forecast should be linked to the five-year corporate plan, maintained continuously and, at a minimum, subject to full annual reviews. A similar process should also be implemented for other critical operations staff, such as train controllers
2. Ensure that comprehensive operating plans are prepared for all major capital projects and significant operational changes, and that these are included in corresponding business cases. These operating plans should include train crew requirements and be approved by the Chief Executive Officer, updated at key milestones and incorporated into the rolling monthly forecast of demand and supply for train crew

3. Extend the Executive General Manager Projects role to include planning and coordinating Queensland Rail's role in all major capital projects and significant operational changes, including the introduction of new timetables. The responsible Executive General Manager should cover projects irrespective of the responsible delivery entity, ensuring absolute focus on their successful delivery, integration and operation
4. Prepare a comprehensive operational readiness assessment for timetable changes. This process should include consideration of all related projects and structured, evidence-based reviews of total staff, rollingstock and infrastructure capacity. The Chief Executive Officer should be accountable for formally approving operational readiness for each timetable change
5. Assess the sustainability of service levels under the current timetable, introduced on 23 January 2017, to enable, at a minimum, the provision of stable services and sufficient training capacity to facilitate the long-term return to desired service levels
6. Ensure that near-term negotiations with train crew unions focus on opportunities to improve productivity and ensure reliable passenger services by addressing rules regarding continuous working time, meal breaks, train crew sectorisation and rostering processes
7. Accelerate the implementation of the Workforce Management System, focussing first on optimisation modules that enable dynamic assessment of crewing rules and other proposed operational changes
8. Conduct a comprehensive review of, and revision to, crewing rules and processes. This should include developing a long-term industrial relations strategy, creating and maintaining a central view of all crewing rules, addressing opportunities to sustainably improve productivity and implementing a structured process for approving subsequent changes, all to be completed by December 2017
9. Implement operational sectorisation of train crew to increase productivity, make operations more robust and accelerate the training of train crew

### **Supply: Create a robust and sustainable supply of train crew**

Queensland Rail should:

10. Deliver and maintain a structural surplus of train crew to enable operations to be conducted without the systemic reliance on overtime, discretionary shifts and tutors and inspectors in operational capacities
11. Maintain a rolling eight-week train crew management plan that accounts for all sources of staff requirements and availability, including operational levers such as annual leave, designated leisure periods and compulsory rest periods
12. Ensure management exercises discretion over granting leave and scheduling leisure periods for train crew to maintain sufficient supply throughout the year
13. Develop regular reporting and analysis of levels of overtime, sick leave, absenteeism, engagement and attrition to support a continued focus on the health and wellbeing of the train crew workforce. These reports should be shared with the Executive Leadership Team
14. Open recruitment processes for drivers and guards to external applicants – including applicants with no previous rail experience – to increase the diversity and pool of applicants and expedite progress towards achieving a structural surplus of train crew



15. Move from intermittent recruitment campaigns to ongoing recruitment and training of drivers and guards with intakes sufficient to meet long-term graduation rates required by the five-year rolling forecast of demand and supply
16. Introduce modern, competency-based training arrangements in line with Australian and global best practices. This should include enforcing standardised assessment criteria, setting a maximum duration for training, overhauling the training curriculum, increasing the use and quality of train simulators and creating a management structure to provide appropriate oversight of tutors and trainees. Training for drivers should target an average duration of nine months or less

### **People and processes: Strengthen management processes and organisational culture**

Queensland Rail should:

17. Immediately confirm that the Senior Manager Train Service Delivery is accountable for managing supply, demand and responses to projected train crew shortfalls for at least the rolling eight-week forecast period, and assess the skill set required to perform this role
18. Clarify, systematically assign and document accountabilities for all train crew processes, including forecasting, recruitment, training, rostering, day-of-operations and people management
19. Encourage and acknowledge early and proactive internal escalation of potential issues to senior management
20. Minimise executive absences during periods of significant change, such as the introduction of a new timetable or the commissioning of an extension to the network
21. Rely primarily on subordinates rather than peers to fill roles where temporary relief is required to maintain continuity of management and support learning and development
22. Eliminate the Chief Operating Officer role and replace it with an Executive General Manager responsible for passenger rail in South East Queensland and an Executive General Manager responsible for Travel and Tourism, to increase the Chief Executive Officer's visibility and focus on the operational businesses. In redesigning the organisation structure, Queensland Rail should also:
  - (a) Minimise organisation layers in the residual organisation – targeting a maximum of five layers from the Chief Executive Officer to frontline operations – to improve information flows and issue escalation
  - (b) Elevate Safety, Assurance and Environment to be a direct report to the Chief Executive Officer
  - (c) Integrate the Rail Management Centre and Citytrain into a single operational unit
  - (d) Increase the ratio of supervisors to train crew significantly to improve the relationship and information flow between management and train crew
  - (e) Transfer accountability for train crew training to the Human Resources function
  - (f) Eliminate duplication between divisions and functions
23. Implement a Lean Management System throughout Queensland Rail, including structured quantitative and visual reporting against annual operating plans and other operational metrics. The Chief Financial Officer should have accountability for monitoring and reporting on implementation

24. Overhaul Queensland Rail's risk management approach to improve the effectiveness of all three lines of defence, including ensuring line management is capable of managing day-of-operations risks, consolidating corporate risk functions and relying primarily on independent providers to undertake internal audits
25. Ensure in its current search for a new Chief Executive Officer that candidates demonstrate the following attributes:
  - (a) Strong customer service focus
  - (b) Significant operational experience, preferably in a world-class passenger transport organisation
  - (c) Track record of delivering large transformation programs
  - (d) Proven capacity to drive cultural change
  - (e) Proven ability to operate successfully in a complex stakeholder environment
  - (f) Prepared to serve a term of at least five years
26. Undertake an assessment of the capabilities of the Executive and Senior Leadership teams and, if inadequacies are identified, develop or recruit necessary capabilities
27. Implement regular reporting on train crew demand, supply and shortfall initiatives to Queensland Rail's Executive Leadership Team, Board and the Responsible Ministers. This should occur each month for at least the duration of the recovery program
28. Overhaul communications to Government, including simplifying and streamlining matters reported, using more quantitative information, proactively reporting potential issues of substance with sufficient lead time for action
29. Implement transparent and timely reporting to TransLink and the public regarding operational issues that are affecting, or may affect, service delivery, to enable customers to plan alternative travel arrangements. This information should be available in real time at stations, online and through the call centre
30. Implement a communications plan with immediate effect to restore public confidence in the Citytrain network
31. Conduct a comprehensive cultural assessment and develop a multi-year action plan to foster a culture of excellence in customer service, transparency and proactivity

### **Governance: Confirm accountabilities and refresh the relationship with Government**

The Government should:

32. Clarify reporting practices to the Responsible Ministers, including:
  - (a) Ensuring operational and policy matters are reported to the Minister for Transport, through the Department of Transport and Main Roads
  - (b) Ensuring reporting to the Treasurer is focussed on financial matters, through Queensland Treasury
  - (c) Proactively managing adherence to these practices and incorporating any changes arising out of recommendation 36

33. Confirm that the Department of Transport and Main Roads has accountability for all major capital projects and significant timetable changes, and ensure that Queensland Rail remains accountable for operational readiness and project acceptance
34. Mandate that program boards for major capital projects and significant timetable changes are led by the Department of Transport and Main Roads and have clear accountability for oversight, decision making and execution of program deliverables
35. Establish a Rail Review Office to monitor, independently audit and report on the implementation of Queensland Rail's response and recovery plan and the agreed recommendations of the Commission
36. Task the Rail Review Office with leading reviews of the governance, legislative framework and structure of passenger rail service delivery in Queensland. These reviews should consider the appropriate operating model and accountability for public transportation services in light of forthcoming major changes, such as the introduction of the New Generation Rollingstock, the Commonwealth Games, European Train Control System and Cross River Rail. As a starting point, the Rail Review Office should undertake four key reviews:
  - (a) Assess, make recommendations on and oversee the implementation of a closely integrated public transport service developed based on leading models of such integrated organisations
  - (b) Assess the requirement for, and composition of, a Board of Queensland Rail
  - (c) Define accountabilities for Queensland Rail's long-term industrial relations strategy, ensuring alignment with its long-term business strategy
  - (d) Undertake a whole-of-business review of Queensland Rail to identify any systemic organisational issues and develop actions to address these issues.

### Next steps

The Commission looks forward to Queensland Rail and the Government taking these recommendations forward in order to deliver the outstanding commuter rail services that the people of South East Queensland expect and deserve.

# 1 Introduction

## 1.1 Establishment of the Commission of Inquiry

On 27 October 2016, the Premier announced an investigation into Queensland Rail's train crewing practices, following a series of disruptions to the Citytrain network. On 24 November 2016, the investigation was formally established as a Commission of Inquiry.

The Commission was led by Phillip Strachan. He was supported by Patrina Clohessy and Michael Hodge as Counsel Assisting, experienced policy and rail specialists, and The Boston Consulting Group.

## 1.2 Terms of reference

The terms of reference set out the Commission's scope and require it to review:

1. Circumstances leading up to and associated with the current disruptions to the Citytrain timetable:
  - (a) The adequacy of Queensland Rail scheduling, rostering, training, crewing, recruitment and training practices, including arrangements put in place to support the new timetable that commenced 4 October 2016
  - (b) What circumstances led to any inadequacies in part 1(a)
  - (c) When deficits in train crew availability were known about and what action was taken ahead of the commissioning of the Redcliffe Peninsula Line to address these issues
  - (d) The nature and suitability of actions taken by Queensland Rail once the train crewing issues manifested under the new timetable.
2. Implementation of the five-point plan to restore timetabled services and public confidence in Queensland Rail timetabling:
  - (a) Progress with the recruitment and training of the additional 200 drivers (100 approved in November 2015, and 100 announced on 24 October 2016) and 200 additional guards (100 approved in November 2015, and 100 announced on 24 October 2016)
  - (b) Future demand and supply requirements for train crew, including for the crewing of New Generation Rollingstock
  - (c) Ensuring the suitability of current and proposed Queensland Rail recruitment practices to address the issues in 2(b)
  - (d) The development and delivery of the interim timetable
  - (e) The suitability of arrangements and timeframes to transition from the interim timetable to the full timetable.

## 1.3 Investigation process

The Commission has undertaken extensive investigations to inform its findings and recommendations, including formal interviews, focussed analytical exercises and review of data.

First, the Commission undertook 102 interviews with:

- Members of the current Queensland Government (the **current Government**), including the Minister for Transport, the Treasurer and the Deputy Premier, Minister for Infrastructure, Local Government and Planning and Minister for Trade and Investment
- The Leader of the Opposition, the Shadow Treasurer, and the Shadow Minister for Transport and Main Roads and the Shadow Minister for Local Government
- Senior staff from the Department of Transport and Main Roads
- Senior staff from Queensland Treasury
- Current and former staff and Board members from Queensland Rail
- Representatives from the Rail, Tram and Bus Union, Australian Federated Union of Locomotive Employees and Australian Services Union
- Staff from GIRO and Indec
- Global and Australian rail industry experts.

Additional written statements were requested and received from eight individuals.

Second, the Commission worked with Queensland Rail and industry experts to undertake focussed analytical exercises, including:

- Time and motion studies of drivers and guards
- Assessment of training curriculum and delivery methods
- Focus group discussions with drivers, guards, tutor drivers and tutor guards
- Mapping and analysis of timetabling, crewing and rostering processes.

Third, the Commission requested, received and reviewed more than 7,900 documents provided by:

- Queensland Rail, including past and present directors, officers and employees
- The Queensland Cabinet Secretary
- The Responsible Ministers' Offices (both current and past)
- The Department of Transport and Main Roads
- The Queensland Treasury
- The Opposition.

The Commission completed a significant amount of its analysis using data provided by Queensland Rail. The Commission notes that Queensland Rail frequently revised and updated its data during the course of the investigation. The Commission has used reasonable endeavours to ensure that where data is presented in this report, it is accurate, including working with Queensland Rail to verify its accuracy.

A significant proportion of the material provided to the Commission was done so on the basis that such documents were subject to claims of privilege and confidentiality and that these claims may be pursued should public disclosure be considered.

Fourth, on 6 January 2017, at the request of the Commission, Queensland Rail provided a report outlining its recovery plan, including its response to the five-point plan detailed in the Commission's terms of reference.

Fifth, the Commission provided excerpts from a draft report to persons and organisations affected by potentially adverse findings and recommendations with an opportunity to comment on or make submissions concerning the proposed findings or recommendations. The Commission carefully considered all comments and submissions in making its final findings and recommendations.

Last, the Commission also established a website to provide a channel for the public to contact the Commission.

The Commission would like to thank each of the above persons for making themselves available for interviews and for providing the requested data and documents.



## 2 Timeline of events

In late 2016, there were major disruptions to the Citytrain network, which significantly impacted Queensland Rail's customers.

In its review of the circumstances leading up to and associated with the disruptions, the Commission identified:

- Pre-disruption: Queensland Rail prepared to launch services on the Redcliffe Peninsula Line and began recruiting train crew
- Initial disruption: Increased operational strain within the Citytrain network led to disruptions and reliability issues in late October 2016, and Queensland Rail launched its recovery program
- Subsequent disruptions: After a period of relative stability, Queensland Rail experienced its largest train cancellation event to date.

Exhibit 1 summarises the key events associated with the disruptions to the Citytrain network in 2016.

**Exhibit 1: Summary of key events**

	Redcliffe Peninsula Line	Timetable	Workforce supply
2011	<ul style="list-style-type: none"> <li>• Redcliffe Peninsula Line business case completed</li> </ul>	<ul style="list-style-type: none"> <li>• New timetable (Ipswich to North Coast) successfully introduced</li> </ul>	
2012			
2013	<ul style="list-style-type: none"> <li>• Commissioning expected in late 2016</li> </ul>		<ul style="list-style-type: none"> <li>• Workforce and resource plan forecasts deficits in drivers and guards</li> </ul>
2014	<ul style="list-style-type: none"> <li>• Commissioning date pulled forward to mid-2016</li> </ul>	<ul style="list-style-type: none"> <li>• New timetable (all remaining suburban lines) successfully introduced</li> </ul>	<ul style="list-style-type: none"> <li>• One year pause on new driver training schools begins</li> </ul>
2015	<ul style="list-style-type: none"> <li>• Commissioning date pulled forward to early 2016</li> <li>• Opening pushed back to April 2016</li> </ul>	<ul style="list-style-type: none"> <li>• First draft timetable prepared for the Redcliffe Peninsula Line</li> </ul>	<ul style="list-style-type: none"> <li>• Training schools recommence</li> <li>• 2015/16 Operational Plan notes intention to recruit and train approximately 80 new train crew</li> </ul>
2016	<ul style="list-style-type: none"> <li>• Opening pushed back to mid-2016</li> <li>• Opening pushed back to October 2016</li> <li>• Redcliffe Peninsula Line opens</li> </ul>	<ul style="list-style-type: none"> <li>• New timetable implemented</li> <li>• 167 services cancelled</li> <li>• Interim and revised timetables introduced</li> <li>• 261 services cancelled</li> <li>• Summer timetable introduced</li> </ul>	<ul style="list-style-type: none"> <li>• Internal recruitment of 100 drivers and 100 guards begins</li> <li>• Indec report identifies train crew shortfall</li> <li>• GIRO letter identifies train crew shortfall</li> <li>• Internal operational readiness audit investigates risk of insufficient train crew</li> <li>• Additional GIRO letter reaffirms train crew shortfall</li> <li>• Five-point plan announced</li> </ul>

## 2.1 Pre-disruption

The business case for the Redcliffe Peninsula Line was agreed in 2011. This new line would connect Kippa-Ring and Petrie via 12.6 kilometres of new track and add a further 6 stations to the network.<sup>2</sup>

Construction of the Redcliffe Peninsula Line commenced in January 2014,<sup>3</sup> with a target completion date of December 2016. In 2015, the first draft timetable to integrate the line into the broader network was prepared and also the targeted commissioning date for the Redcliffe Peninsula Line was brought forward to early 2016.

In mid-2015, Queensland Rail realised it might not have sufficient train crew for the opening of the Redcliffe Peninsula Line.<sup>4</sup> As a result it took steps to increase train crew numbers in November 2015, including progressing internal recruitment of 100 drivers and 100 guards and increasing training capacity.

On 13 January 2016, the Minister for Transport revised the opening date for the Redcliffe Peninsula Line to mid-2016<sup>5</sup> as signalling at the Petrie junction would not be ready.<sup>6</sup>

In February and March 2016, the division of Queensland Rail responsible for train crew received two documents indicating that Queensland Rail may face a deficit of train crew:

- Indec, a transport consultancy, indicated that an expected shortfall of drivers posed a "significant risk to the successful delivery"<sup>7</sup> of the new timetable and other forthcoming projects<sup>c</sup>
- GIRO, a consultancy engaged to optimise job cards<sup>d</sup> for the new timetable, warned that Queensland Rail would not have sufficient drivers and guards to operate the new timetable, unless it revised its crewing rules.<sup>8</sup>

In August 2016, the opening date of the Redcliffe Peninsula Line was revised to October 2016.<sup>9</sup>

On 30 September 2016, Queensland Rail experienced early signs of the disruptions to come as it was forced to cancel 53 services across the network.<sup>10</sup>

On 2 October 2016, Queensland Rail's Chief Executive Officer sent a draft briefing note to the Minister for Transport's Chief of Staff, identifying that Queensland Rail had a shortfall of train crew but providing assurances that it did not expect significant further cancellations.<sup>11</sup> The Chief of Staff did not recall briefing the Minister for Transport on the content of this note.<sup>12</sup>

In an interview with the Commission, the Chief Executive Officer confirmed that Queensland Rail did not at any time prior to the opening of the Redcliffe Peninsula Line indicate to the Responsible Ministers that it would not have sufficient train crew to operate the new timetable.

The Redcliffe Peninsula Line was officially opened on 3 October 2016 and commenced passenger services on 4 October 2016 – three months before the original schedule but nine months after the earliest targeted opening date.

<sup>c</sup> In follow-up correspondence between Indec and the Commission, Indec highlighted that the projections provided by Queensland Rail did not appear to include all expected demand events and that the project scope did not include the provision of a train crew needs analysis.

<sup>d</sup> A job card identifies the complete set of movements that a driver-guard pair will undertake over a given shift. The process of optimising job cards determines the most efficient allocation of shifts to service a timetable, given a particular set of crewing rules.



## 2.2 Initial disruption

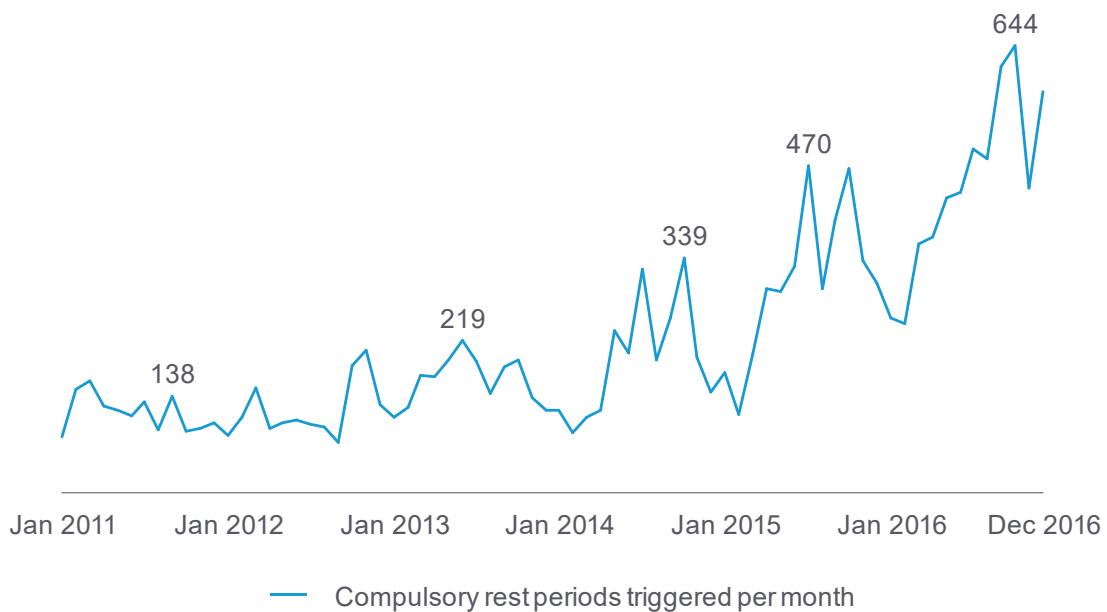
After the new timetable was introduced on 4 October 2016, reliability issues began emerging across the Citytrain network.

The emerging reliability issues faced by Queensland Rail were described in a formal brief to the Responsible Ministers on 7 October 2016, outlining that:<sup>13</sup>

- Train cancellations on 30 September 2016 were due to a crew shortfall caused by piloting on the Redcliffe Peninsula Line<sup>e</sup> and testing of the New Generation Rollingstock
- Queensland Rail expected crew shortfalls on Fridays "over the next few weeks"
- The organisation was facing a shortfall of 62 drivers and 83 drivers and guards, which was higher than the historically manageable shortfall of 25 to 30 drivers and guards.<sup>14</sup>

Late on 20 October 2016, Queensland Rail advised the Minister for Transport that more than 100 services would need to be cancelled or altered the following day due to a lack of available train crew.<sup>15</sup> This was largely due to Queensland Rail experiencing unprecedented levels of compulsory rest periods<sup>f</sup> in October 2016 (Exhibit 2 and 3).

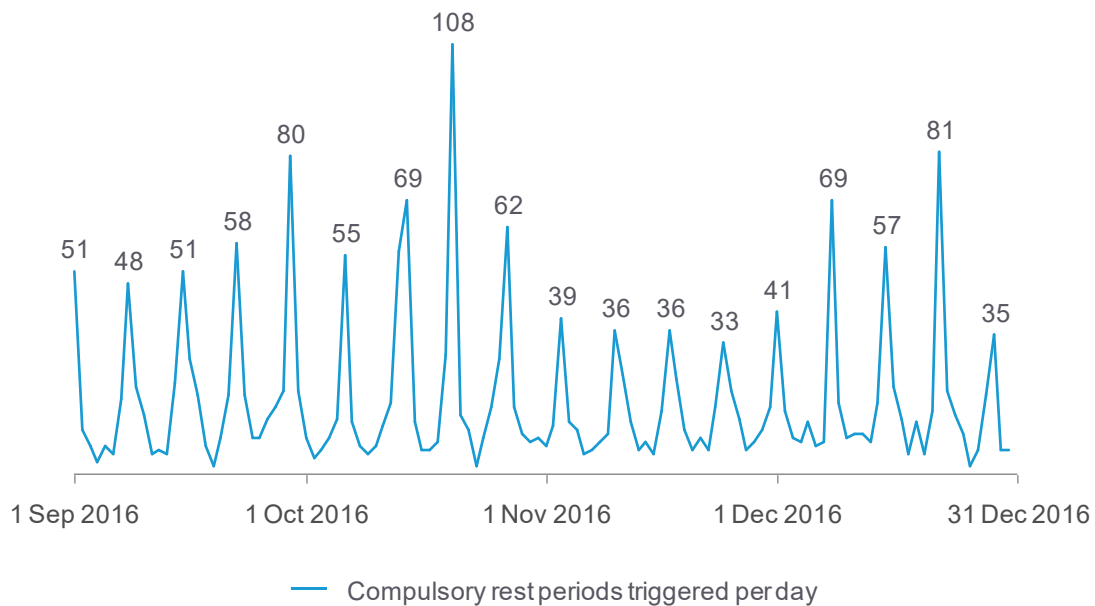
**Exhibit 2: Compulsory rest periods each month from January 2011 to December 2016**



<sup>e</sup> Piloting refers to the initial training and route familiarisation drivers undergo when operating trains on a new line.

<sup>f</sup> A compulsory rest period (also known as a "compulsory book-off") is a mandatory rest break of at least 32 hours that is triggered where the crew member has worked 11 consecutive days or 14 consecutive shifts.

**Exhibit 3: Compulsory rest periods per day for train crew from 1 September 2016 to 31 December 2016**



On 21 October 2016, 167 train services were cancelled across the network. That day, GIRO sent another letter to Queensland Rail outlining a further revision of job cards for the new timetable.<sup>16</sup> The letter stated that implementing a downgraded timetable, while applying the same workforce rules for developing job cards, would not provide a permanent solution and that Queensland Rail should explore alternative crewing rules.

On 23 October 2016, the Queensland Rail Board held an extraordinary meeting to address the emerging issues.<sup>17</sup> The following day, the Minister for Transport announced the five-point plan to restore frontline services and on 25 October 2016 an interim timetable was implemented, which eliminated 209 scheduled services each week (3 per cent of scheduled services).

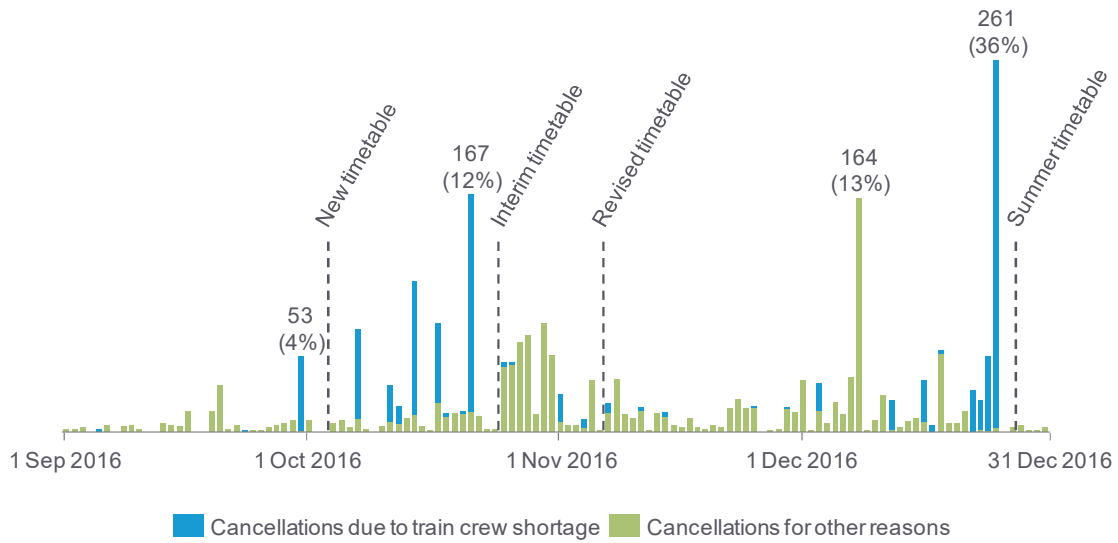
On the same day, the Premier announced an independent investigation into Queensland Rail's train crewing practices and Queensland Rail stood down the Senior Manager of Train Service Delivery, who is responsible for train crew.

The Queensland Rail Chair and the Chief Executive Officer resigned on 27 October 2016, with an Acting Chief Executive Officer appointed that day and an interim Chair appointed on 28 October 2016.

Exhibit 4 depicts all service cancellations from September 2016 to December 2016, showing a trend of cancellations increasing in late September and October, peaking at 167 cancellations on 21 October 2016,<sup>9</sup> with further extensive cancellations occurring in December 2016, culminating in 261 cancellations on Christmas Day 2016.

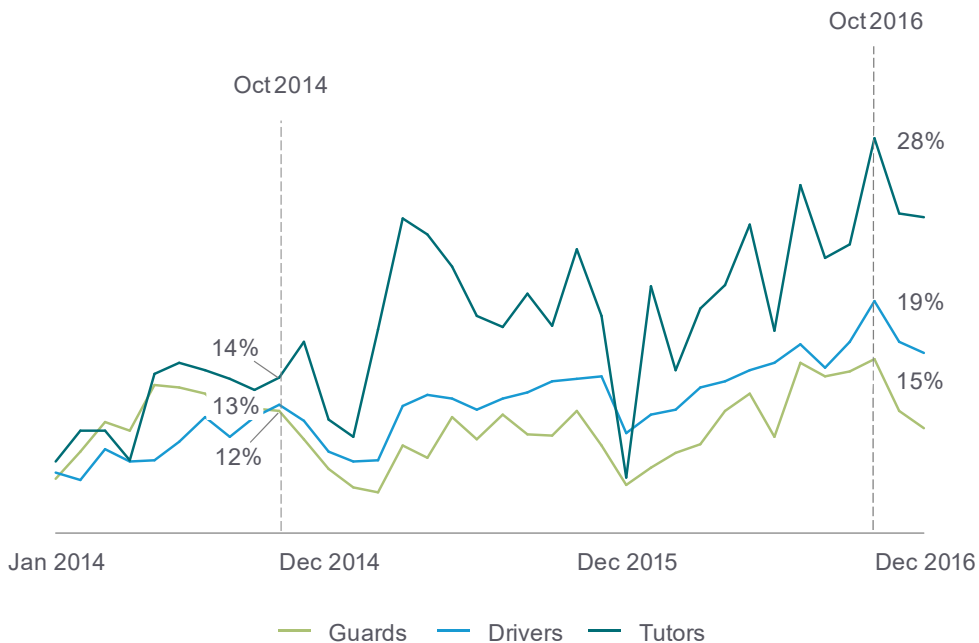
<sup>9</sup> This includes force majeure events, such as extreme weather events. Services may be cancelled for reasons that may not be related to causes of the disruptions.

**Exhibit 4: Cancellations of Citytrain services from September 2016 to December 2016<sup>h</sup>**



In the months leading up to the implementation of the new timetable, Queensland Rail's drivers, guards and tutors worked increasingly unsustainable levels of overtime (Exhibit 5).

**Exhibit 5: Overtime as a proportion of expected hours worked by drivers and guards from January 2014 to December 2016<sup>i</sup>**

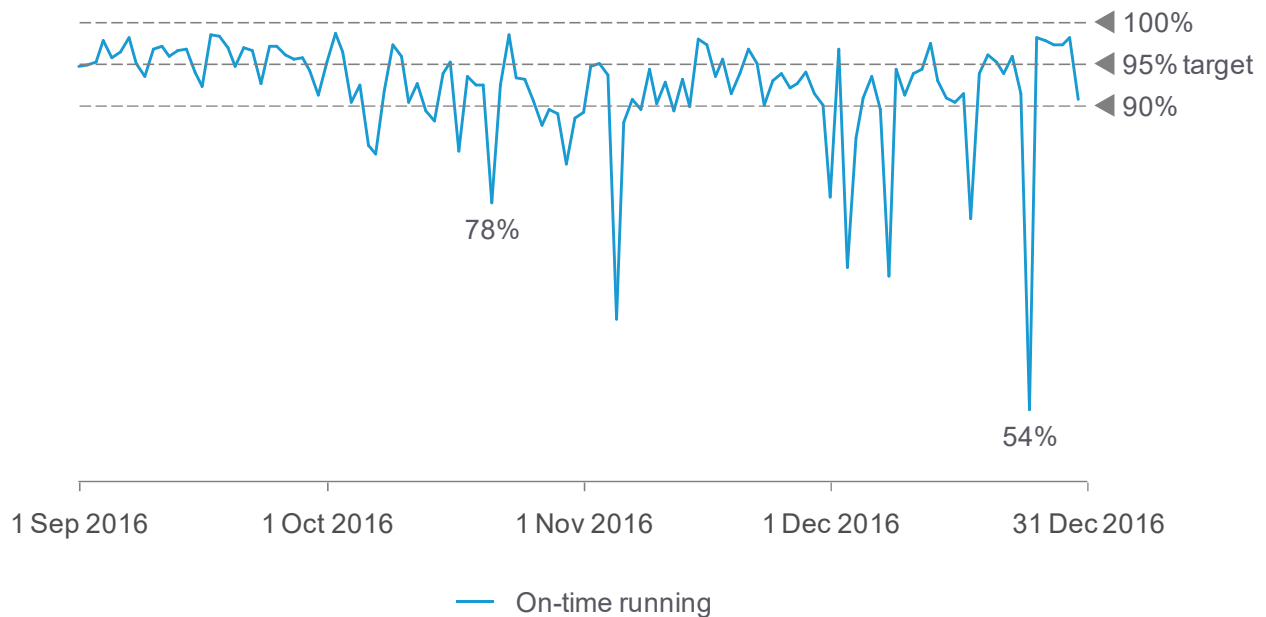


The cancellations from October to December 2016 also drove significant declines in network performance, with on-time running reaching 78 per cent on 21 October 2016 and 54 per cent on Christmas Day 2016 (Exhibit 6). This performance is materially below Queensland Rail's 95 per cent target.

<sup>h</sup> The interim timetable consisted of a series of daily changes introduced to amend the 4 October 2016 timetable.

<sup>i</sup> The overtime worked by tutors is calculated as the average of tutor drivers and tutor guards.

**Exhibit 6: On-time running of Citytrain services from 1 September 2016 to 31 December 2016<sup>j</sup>**



Due to continued service reliability issues, Queensland Rail introduced on 7 November 2016 a further revised timetable that eliminated an additional 339 services each week.

On 24 November 2016, the Premier announced that the Governor in Council had established the Queensland Rail Train Crewing Practices Commission of Inquiry under the *Commissions of Inquiry Order (No. 2) 2016*, citing the limited release of information by Queensland Rail.

In Parliament on 28 November 2016, the Minister for Transport announced in relation to Queensland Rail's recruitment efforts that:<sup>18</sup>

- Offers of employment had been made to 63 (out of 100) prospective guards and 58 (out of 100) prospective drivers from the November 2015 recruitment drive
- 231 driver and 227 guard candidates from the October 2016 recruitment drive had passed the first stage of required testing.

Services appeared to stabilise in late November.

### 2.3 Subsequent disruptions

In an attempt to manage train crew demand and supply over December 2016 and January 2017, Queensland Rail developed a summer timetable, in line with normal practice to reduce services during the holiday period.

On Christmas Day 2016, two days before the introduction of the summer timetable, Queensland Rail cancelled 261 of 730 scheduled services (36 per cent). These issues were attributed to driver unavailability, unplanned absences of train crew and limited rostering flexibility.

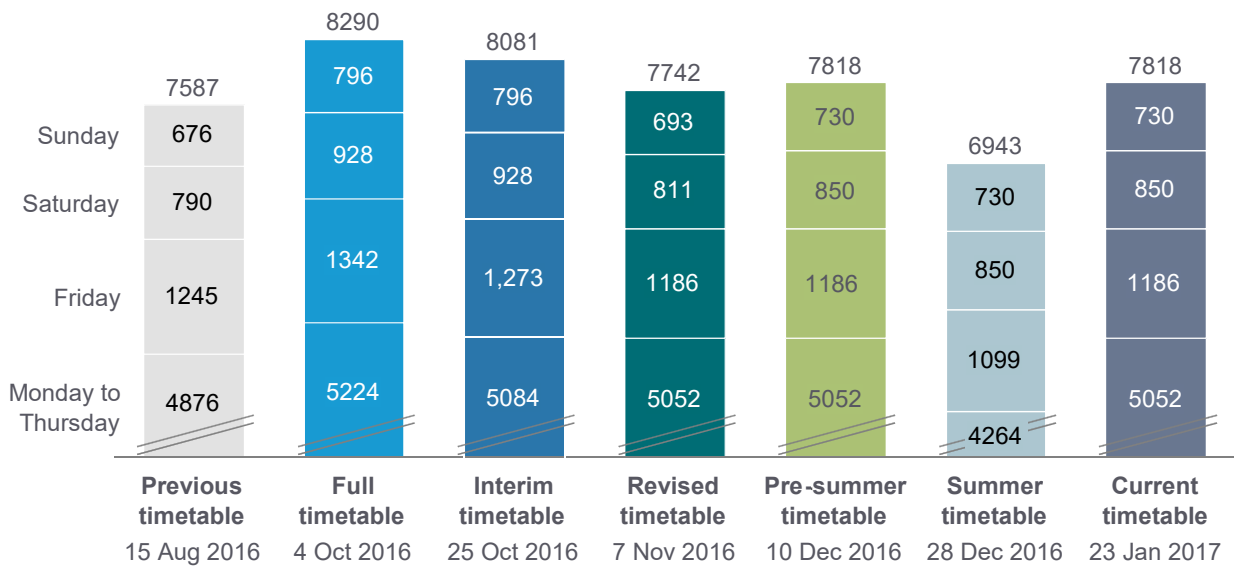
<sup>j</sup> On time running measures the percentage of services that arrive within a designated time period. For Citytrain services, this time period is 3 minutes and 59 seconds. The exhibit identifies on-time running 24/7 customer impact.

On 28 December 2016, the summer timetable was implemented. That day, Queensland Rail's Chief Operating Officer announced his retirement, effective on 28 January 2017.

From 23 January 2017, Queensland introduced the current timetable and publicly announced it intended to operate this timetable throughout 2017.

In total, Queensland Rail introduced five timetables between October 2016 and January 2017, culminating in a 9 per cent reduction in the number of weekly services from the 4 October 2016 timetable (Exhibit 7).

**Exhibit 7: Scheduled timetable services from August 2016 to January 2017<sup>k</sup>**



Throughout this period, customers have remained resilient and continued to use the network, despite ongoing disruptions to their daily lives. This highlights how important passenger rail services are to the people of South East Queensland, and emphasises the need to recover operations, ensuring that passengers arrive safely and reliably at their destinations going forward.

<sup>k</sup> The 7 November 2016 Revised timetable did not include Rosewood services until 10 December 2016. At this point, service levels increased. The 25 October 2016 Interim timetable was a series of changes, with no confirmed service numbers.

### 3 Recovery actions

Since the disruptions on 21 October 2016, Queensland Rail has developed and commenced implementation of its recovery program.

The Commission has assessed the adequacy of this response across four key areas:

1. Recognition of underlying issues
2. Actions taken once the train crewing issues manifested
3. Implementation of the five-point plan to restore timetabled services
4. Actions taken beyond the five-point plan to address systemic issues.

#### 3.1 Recognition of underlying issues

In its formal response, Queensland Rail identified five root causes underlying the disruptions in October and December 2016:

1. Focussing on day-to-day operations limited long-term workforce planning
2. Reallocation of tutors to operate revenue services and training on the Redcliffe Peninsula Line contributed to a lack of new supply
3. The duplication of risk and assurance functions within the Operations structure limited visibility of lead indicators and critical information
4. The negotiation of informal work practices without appropriate governance decreased productivity and eroded efficiency gains
5. Critical deficiencies in leadership and culture existed within the Operations function.

In the Commission's view, Queensland Rail has identified many of the key factors contributing to the disruptions. This has enabled Queensland Rail to appropriately focus its early recovery efforts, and is a reassuring first step toward its long-term recovery. However, it will be necessary to address broader organisational and governance issues beyond the Operations function in order to ensure similar issues do not arise in other parts of the organisation.

#### 3.2 Initial actions

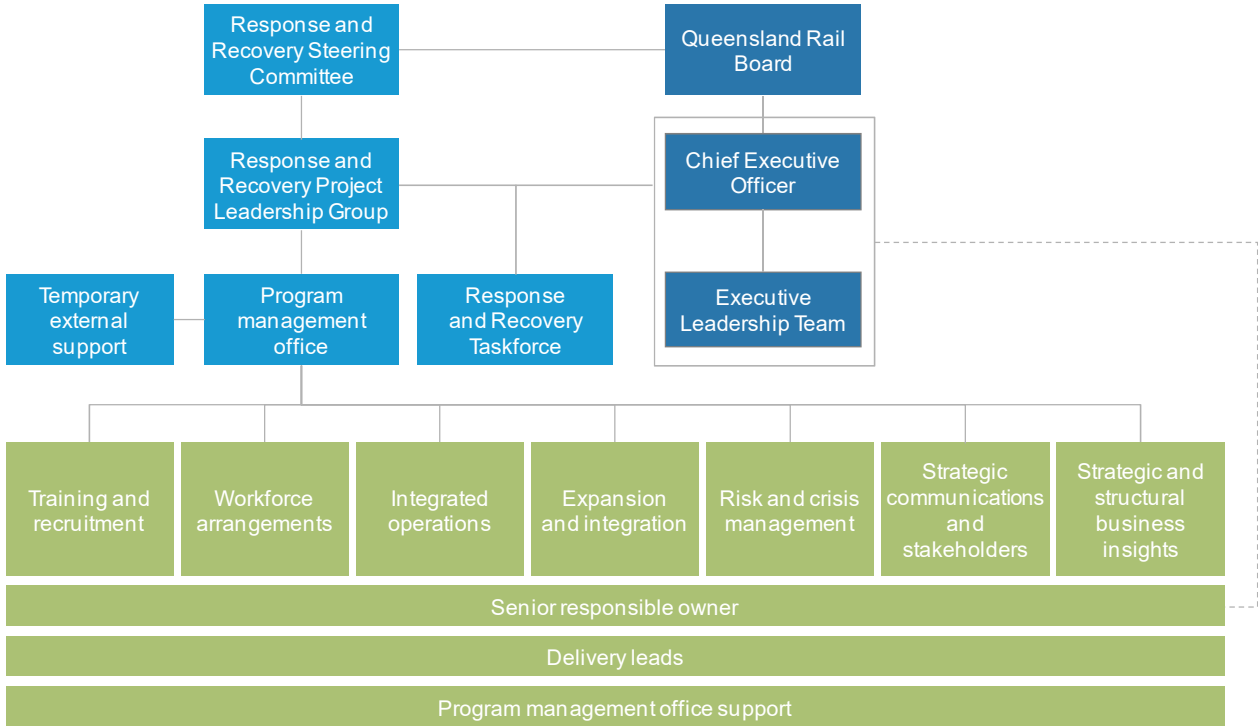
Queensland Rail has focussed its initial response in three key areas.

First, Queensland Rail developed and implemented a series of new timetables in an attempt to improve the reliability of services. While each change initially appeared to improve stability, they were not sufficient to eliminate underlying crewing pressure. It is the Commission's view that Queensland Rail should have introduced deeper cuts to services to provide greater stability and eliminate the need to further revise the timetable.

Second, Queensland Rail has undertaken negotiations to increase flexibility around important crewing rules, such as suspending inflexible meal break rules, in order to improve productivity. While these changes will have a substantial impact on demand, they will not be sufficient to ensure reliable services.

Third, Queensland Rail has established a dedicated senior team to lead the longer-term recovery program and to implement the five-point plan. The structure of this program is set out in Exhibit 8.

**Exhibit 8: Queensland Rail's response and recovery program structure**








Queensland Rail should be recognised for the program's comprehensiveness, level of senior engagement and early activity.

### 3.3 Implementation of the five-point plan

Queensland Rail's medium-term recovery program has been assessed against the five-point plan outlined in the Commission's terms of reference, as set out in Exhibit 9. The Commission recognises that Queensland Rail's response is in its preliminary stages, and that it has taken positive steps to identify and address the challenges.

**Exhibit 9: Adequacy of Queensland Rail's response to five-point plan**

Topic	Terms of reference	Adequacy assessment
<b>Recruitment and training campaigns</b>	Progress with the recruitment and training of the additional 200 drivers (100 approved in November 2015, and 100 announced on 24 October 2016) and 200 additional guards (100 approved in November 2015, and 100 announced on 24 October 2016)	 Some progress
<b>Future demand and supply</b>	Future demand and supply requirements for train crew, including for the crewing of New Generation Rollingstock	 Some progress
<b>Recruitment practices</b>	Ensuring the suitability of current and proposed Queensland Rail recruitment practices to address the issues in 2	 Limited progress
<b>Interim timetable</b>	The development and delivery of the interim timetable	 Some progress
<b>Full timetable</b>	The suitability of arrangements and timeframes to transition from the interim timetable to the full timetable	 Limited progress

### 3.3.1 Recruitment and training campaigns

Queensland Rail has undertaken two significant recruitment drives with a view to recruiting a total of 200 drivers and 200 guards, the progress of which is detailed in Exhibit 10.

**Exhibit 10: Queensland Rail's expected recruitment and training progress**

		Drivers	Guards
<b>Campaign target</b>	<b>Target</b>	200	200
<b>Progress at 1 January 2017</b>	<b>Recruited</b>	78	65
	<b>Training commenced</b>	15	57
	<b>Qualified</b>	0	31
<b>Forecast completion date<sup>1</sup></b>	<b>All recruited</b>	30 April 2018	30 September 2017
	<b>All training commenced</b>	30 June 2018	31 December 2017
	<b>All qualified</b>	30 June 2019	30 April 2018

It is the Commission's view that Queensland Rail has made limited progress in this regard since October 2016. Guard training has been well progressed, however progress on driver training has been slower, in

<sup>1</sup> Drivers and guards will progressively graduate from this program. The provided dates are for the last expected graduate.



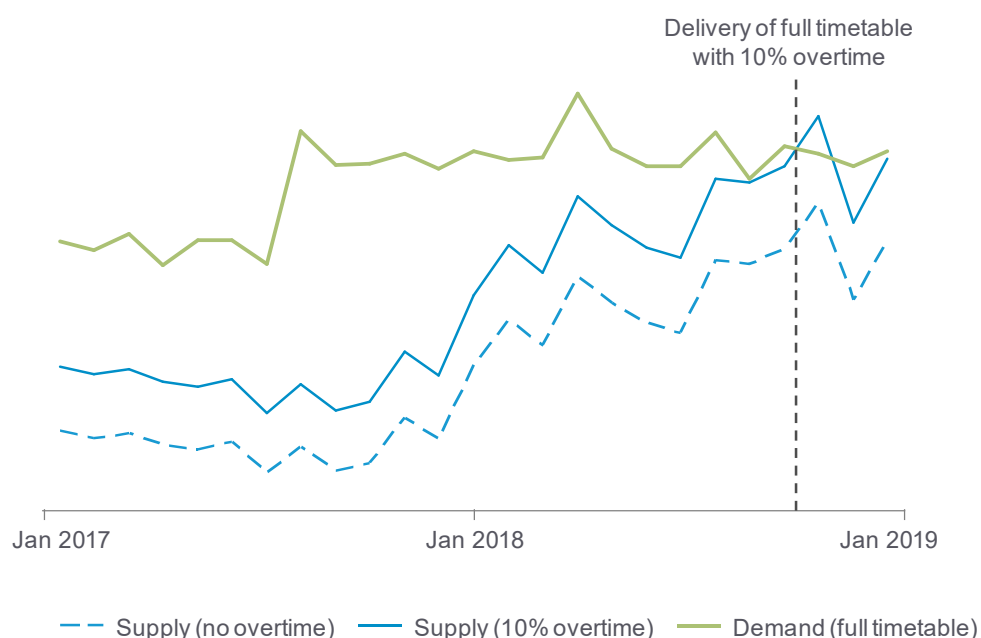
part due to the temporary suspension of training in early October 2016 to allow guards who were training to become drivers to operate revenue services.

### 3.3.2 Future demand and supply

To address the second component of the five-point plan, Queensland Rail is working on three key initiatives, namely improving its forecasting practices, accelerating training programs and introducing flexible working arrangements.

First, Queensland Rail has begun to develop long-term forecasts of demand and supply for train crew, the output of which is shown in Exhibit 11.

**Exhibit 11: Queensland Rail's forecasts of supply and demand for drivers from January 2017 to January 2019**



From this analysis, Queensland Rail has concluded that it will have train crew to deliver the full timetabled services by:

- Late 2018, assuming 10 per cent overtime
- Mid- to late 2019, assuming no overtime.

Until such time, Queensland Rail will continue to operate with reduced services and high levels of overtime.

The Commission notes that Queensland Rail's forecasts appear to contain overly optimistic assumptions, particularly pertaining to overtime, attrition, planned leave, training durations and impacts of the new enterprise agreement.

Second, Queensland Rail is investigating a number of measures to reduce average training duration from 18 months to 9 months for drivers and from 4 months to 3 months for guards. These measures include:

- Introducing route mentors to accelerate training on revenue services
- Seeking external support to review and transform its training program

- Improving training efficiency through planning, reporting, information sharing and rostering
- Implementing probationary train crew licences to enable trainees to operate revenue services before completing all route competency training.

The Commission believes these initiatives will help to accelerate training programs but are not sufficient to meet target training durations.

Third, Queensland Rail is seeking to introduce flexible working arrangements to improve retention. Initiatives include optimising part-time working arrangements, introducing job sharing, enabling purchase of additional leave and supporting employees to transition to retirement. While these measures may improve diversity and retention, the Commission considers that these initiatives could have a significant negative impact on supply and should only be implemented after the recovery period.

Further investigation into opportunities to reduce train crew demand, beyond the temporary suspension of work practices, will be vital to ensure a timely return to the full timetable.

### 3.3.3 Recruitment practices

In an attempt to increase near-term supply, Queensland Rail has engaged in consultations with unions to enable external recruitment of drivers with previous train crewing experience. Although Queensland Rail initially planned to commence external recruitment in mid-January 2017, it is yet to do so.<sup>19</sup> Furthermore, the Commission considers that such efforts should be extended to include external candidates without prior train driving experience. Accessing a more diverse and competitive pool of applicants could result in candidates completing training programs at an accelerated pace, thereby increasing the pace of the recovery effort. In addition, extending recruitment to external applicants will avoid depleting internal talent pools and preserve guard numbers to prevent similar shortages, avoiding similar issues over the coming two years.

### 3.3.4 Interim timetable

The five-point plan required Queensland Rail to implement the interim timetable, which was the timetable introduced on 25 October 2016, for the duration of the recovery period. The timetable currently in place was introduced on 23 January 2017, and has a lower level of services than the interim timetable.

Even at this reduced service level, the Commission believes a further review of the sustainability of the current timetable may be valuable, in light of the facts that:

- When a similar timetable was last in operation, on-time running was below the 12-month trend and overtime was 11 per cent for guards, 16 per cent for drivers and 24 per cent for tutors,<sup>m</sup> which the Commission considers to be unsustainable
- There have been no significant improvements to train crew supply or productivity
- A build-up of leave entitlements and fatigue may further reduce availability of train crew over the coming months
- Queensland Rail has not effectively monitored and managed the impact of crewing rules on train crew supply. This was evident during the Christmas Day 2016 cancellations, when the impacts of compulsory rest periods and Sunday working restrictions do not appear to have been properly understood.

<sup>m</sup> These were the levels of overtime for the month of December.

### 3.3.5 Full timetable

As identified above, Queensland Rail expects it will have sufficient train crew to deliver the full timetabled services by:

- Late 2018, assuming 10 per cent overtime
- Mid- to late 2019, assuming no overtime.

The Commission considers that neither of these dates will meet public expectations. However, a return to the full timetable should not occur until it can be safely, consistently and reliably delivered.

## 3.4 Further actions

Queensland Rail acknowledges the existence of further systemic issues in the organisation. It is seeking to address these systemic issues through:

- Consolidating its risk functions into the central risk team
- Reviewing its Operations function
- Progressing recruitment of a new Chief Executive Officer
- Considering a longer-term cultural change program.

While Queensland Rail has taken positive steps towards its recovery, it has not yet finalised plans to address ongoing organisational and systemic issues, which will be necessary to ensure that similar issues do not arise in other parts of the organisation or in the future.

The Commission believes that the analysis and recommendations made in this report will assist in Queensland Rail's recovery effort, and recognises Queensland Rail's appetite and willingness to receive and act upon such recommendations.

## 4 Underlying issues and recommendations

The Commission has identified four underlying issues that precipitated the disruptions to the Citytrain network in late 2016:

1. Demand for train crew grew significantly in recent years
2. The supply of qualified drivers declined over the same period
3. People and process limitations meant the growing gap between supply and demand was not widely appreciated
4. Queensland Rail's vast remit, and its complex and unclear governance arrangements, made it difficult for the Chief Executive Officer to maintain effective oversight of operations.

These issues build upon and expand on those identified by Queensland Rail.

### 4.1 Train crew demand

The Commission identified an increase in train crew demand as an underlying cause of the disruptions to the Citytrain network in late 2016. Train crew demand refers to the number of train drivers and guards required to operate services.

Queensland Rail was insufficiently prepared to address the increased demand for train crew because:

1. The combined impact of the new timetable and major projects on demand for train crew was not well understood
2. Declines in train crew productivity between 2014 and 2016 were not identified.

#### 4.1.1 The combined impact of the new timetable and major projects on demand for train crew was not well understood

The Commission identified that Queensland Rail did not appear to fully realise the combined impact of the new timetable and major projects for three reasons.

First, it did not maintain a comprehensive forecast of all factors affecting train crew demand. These factors would have included:

- The introduction of the new timetable, which increased the number of services by 9 per cent each week, and was rescheduled at least three times
- A temporary increase in route familiarisation and testing associated with implementing the Redcliffe Peninsula Line, which appears to have increased demand by 21 train crew per day
- Training requirements for the New Generation Rollingstock, which the Commission notes had a negligible impact on train crew availability.<sup>20</sup>

Second, train crew demand was not appropriately addressed in project planning and approval stages. The Commission has established that the business cases for the Redcliffe Peninsula Line and the New Generation Rollingstock did not include detailed operating plans that outlined train crew requirements.

Third, Queensland Rail did not have a single point of accountability for planning, integrating and coordinating operational changes and major projects, including network changes and large capital projects. Queensland Rail's Projects function was only responsible for capital projects delivered internally and was not required to perform comprehensive operational readiness assessments of the combined impact of all upcoming projects, including timetabling.

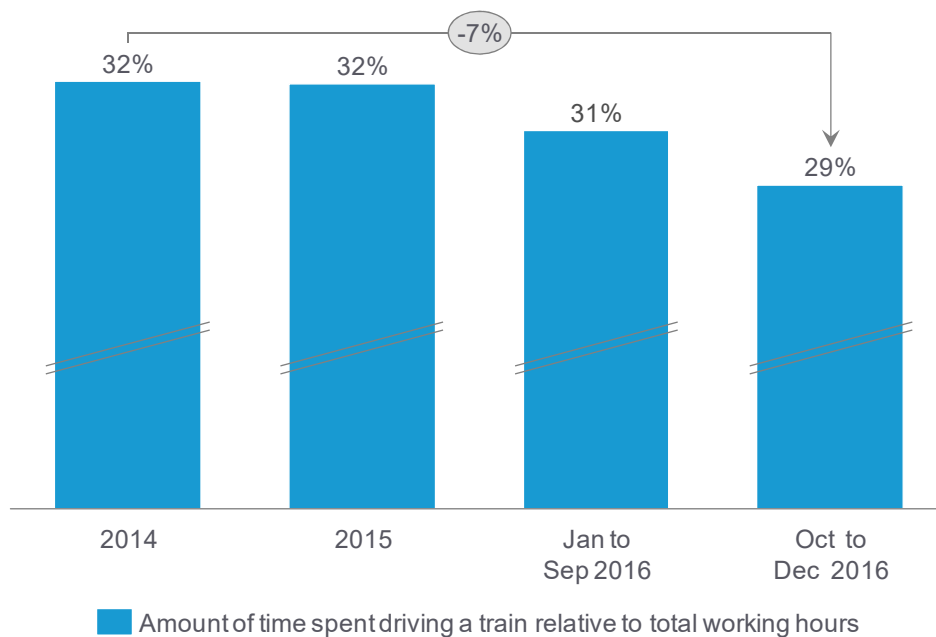
The challenges above meant that Queensland Rail was not able to fully understand the total demand for train crew at any point in time. Consequently, it introduced a series of unsustainable timetables in late 2016.

#### 4.1.2 Declines in driver productivity between 2014 and 2016 were not identified

Train crew productivity is also a significant factor that affects overall demand. For drivers, it can be expressed as the amount of time he or she spends driving a train relative to his or her total working hours. Other significant uses of driver time include training, train preparation, travelling between locations and meal breaks.

As set out in Exhibit 12, productivity for Queensland Rail drivers declined by 7 per cent<sup>n</sup> between 2014 and 2016, and now lags that of best practice Australian railways.<sup>21</sup>

**Exhibit 12: Productivity of drivers<sup>o</sup> from January 2014 to December 2016**



This trend was partially driven by changes to crewing rules, which are negotiated between unions and Queensland Rail's management. For example, GIRO, the external provider that models the impact of crewing rules for Queensland Rail, has estimated that the continuous working time rule<sup>p</sup> increased demand

<sup>n</sup> The productivity decline of 7 per cent is calculated as the difference between 31.6 per cent in 2014 and 29.4 per cent in October to December 2016.

<sup>o</sup> This metric is calculated using inverted driver minutes per train hour, which is similar – but not identical to – footplate time.

<sup>p</sup> This rule requires that, in a shift of more than six hours, a crew member receives an additional meal break of 20 minutes once having worked for 2.5 hours.

by between 5 and 7 per cent.<sup>22</sup> Other complex rules that may adversely affect driver productivity include additional meal breaks, restrictions on the sectorisation of train crew and rostering practices.

Queensland Rail may have accepted overly restrictive crewing rules because:

- It operated without a valid train crew agreement since April 2015<sup>9</sup> and negotiated the new train crew enterprise agreement while operating with a train crew shortfall and while implementing a major timetable change
- It relies on external providers to model the impact of crewing rules and therefore could not readily determine the impact of crewing rules on its ability to meet service levels
- It did not have an enterprise-wide view of agreed crewing rules, which contributed to its poor understanding of the combined impact of these rules on productivity.

The latter two issues are intended to be addressed by the Workforce Management System project, which was initiated in 2009 and is targeting completion in 2017–18.

The Commission has identified that addressing particular crewing rules could enhance productivity. For example, the sectorisation of train crew may be advantageous for Queensland Rail, as it typically:

1. Improves productivity by reducing the need to transfer crew between different trains during an individual shift
2. Reduces training durations as new recruits can commence driving on particular lines before qualifying to operate on the entire network.

#### 4.1.3 Recommendations

The Commission makes nine recommendations to address the issues that contributed to the increase in train crew demand.

1. Develop a comprehensive five-year rolling monthly forecast of demand and supply for train crew. This forecast should be linked to the five-year corporate plan, maintained continuously and, at a minimum, subject to full annual reviews. A similar process should also be implemented for other critical operations staff, such as train controllers

The forecast should:

- (a) Incorporate all drivers of demand, including those relating to timetable changes, major capital projects, special events and other operational changes. Long-term demand should be based on service metrics such as kilometres travelled
- (b) Account for drivers of operational efficiency and any expected changes, such as proposed crewing rules
- (c) Quantify demand in terms of total train crew staffing requirements including robust estimates of leave, other duties, roster inefficiency and training

<sup>9</sup> In April 2015, the High Court of Australia held that the Commonwealth industrial relations regime applied to Queensland Rail, invalidating the 2013 enterprise agreement, which had been developed under state legislation.

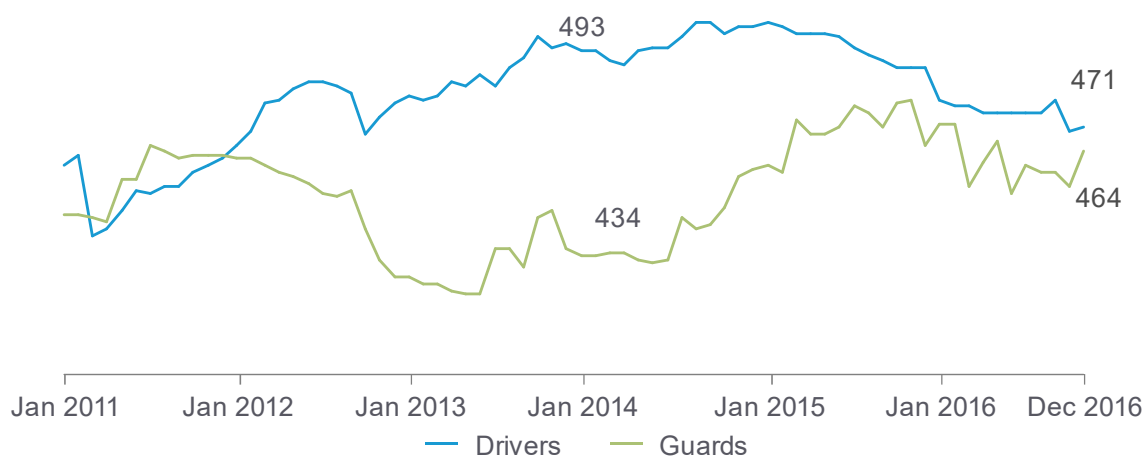
- (d) Ensure estimates of supply incorporate realistic levels of attrition, recruitment and training, considering best estimates of training durations, school sizes and expected graduation rates. This should be provided in terms of total full-time equivalent requirements
  - (e) Incorporate sensitivity analyses to identify the impact of individual demand drivers
  - (f) Provide as outputs any shortfall in full-time equivalents, which can be used to inform resourcing efforts
2. Ensure that comprehensive operating plans are prepared for all major capital projects and significant operational changes, and that these are included in corresponding business cases. These operating plans should include train crew requirements and be approved by the Chief Executive Officer, updated at key milestones and incorporated into the rolling monthly forecast of demand and supply for train crew
  3. Extend the Executive General Manager Projects role to include planning and coordinating Queensland Rail's role in all major capital projects and significant operational changes, including the introduction of new timetables. The responsible Executive General Manager should cover projects irrespective of the responsible delivery entity, ensuring absolute focus on their successful delivery, integration and operation
  4. Prepare a comprehensive operational readiness assessment for timetable changes. This process should include consideration of all related projects and structured, evidence-based reviews of total staff, rollingstock and infrastructure capacity. The Chief Executive Officer should be accountable for formally approving operational readiness for each timetable change
  5. Assess the sustainability of service levels under the current timetable, introduced on 23 January 2017, to enable, at a minimum, the provision of stable services and sufficient training capacity to facilitate the long-term return to desired service levels
    - (a) Develop plans to address critical periods, such as the Easter holiday period in 2017, the increase in testing and training for New Generation Rollingstock from April 2017 and the Commonwealth Games in 2018
    - (b) Ensure that this and future timetables have contingency options with predetermined downgrades to services that are agreed with TransLink and able to be deployed with 24 hours notice to address any unforeseen shortfall, and communicated to customers with sufficient advance notice
  6. Ensure that near-term negotiations with train crew unions focus on opportunities to improve productivity and ensure reliable passenger services by addressing rules regarding continuous working time, meal breaks, train crew sectorisation and rostering processes
  7. Accelerate the implementation of the Workforce Management System, focussing first on optimisation modules that enable dynamic assessment of crewing rules and other proposed operational changes
  8. Conduct a comprehensive review of, and revision to, crewing rules and processes. This should include developing a long-term industrial relations strategy, creating and maintaining a central view of all crewing rules, addressing opportunities to sustainably improve productivity and implementing a structured process for approving subsequent changes, all to be completed by December 2017

9. Implement operational sectorisation of train crew to increase productivity, make operations more robust and accelerate the training of train crew

## 4.2 Train crew supply

Although demand for train crew increased significantly from 2014 to 2016, the supply of qualified drivers declined over this period, as seen in Exhibit 13.

**Exhibit 13: Supply of drivers and guards from January 2011 to December 2016<sup>r</sup>**



Four factors contributed to this issue:

1. The practice of operating with a structural undersupply of train crew
2. Restrictions on external recruitment
3. Reductions in training schools and tutors
4. Delayed recruitment and training response.

### 4.2.1 The practice of operating with a structural undersupply of train crew

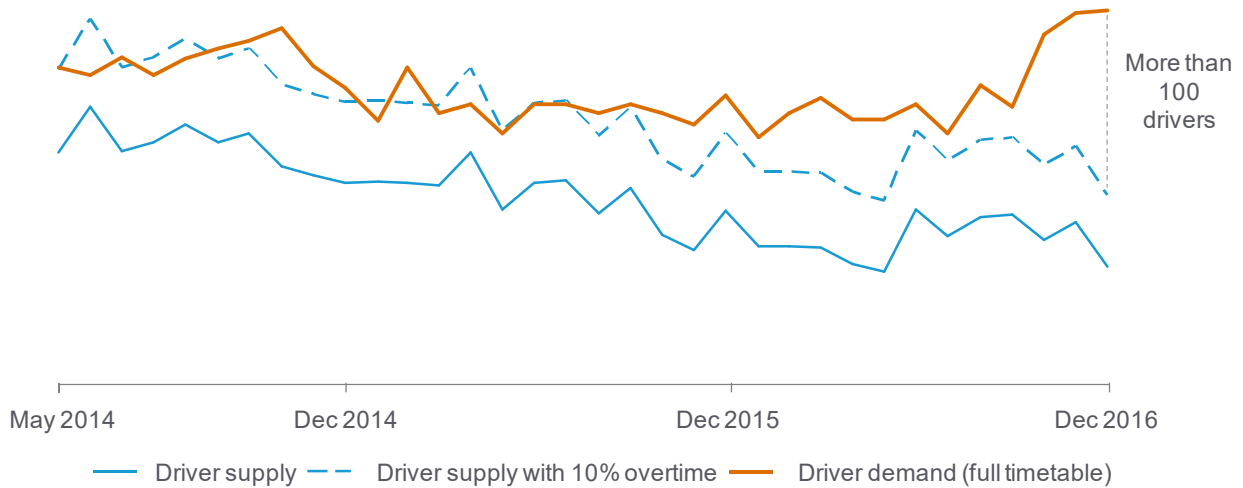
Queensland Rail has historically operated with a structural shortfall of train crew,<sup>23</sup> despite budgeted and vacant positions being available in order to provide overtime opportunities for train crew. In fact, the near-term forecasting model used by Train Service Delivery rostering team incorporated a target of 10 per cent overtime, with actual overtime averaging higher.

This persistent shortfall of train crew was well known within Queensland Rail and not considered an issue.<sup>24</sup> While the deficit of drivers was projected to increase to 60, it in fact reached more than 100, drivers in December 2016 (Exhibit 14). This significantly exceeded the historically manageable level of 25 to 30 train crew.<sup>25</sup>

<sup>r</sup> This includes a manual adjustment to account for an assumed error in Queensland Rail's data between February and November 2013.



**Exhibit 14: Widening driver demand and supply gap from May 2014 to December 2016<sup>s,26</sup>**



The persistent long-term structural deficit of train crew had two key implications.

First, this deficit created a sustained reliance on overtime to meet service levels. In October 2016, this overreliance triggered record numbers of compulsory rest periods for train crew, which was the primary cause of the cancellations on 21 October 2016. The Commission considers that overtime should be used as a measure to address temporary increases in demand – such as special events – rather than to compensate for structural deficits in train crew.

Second, this deficit led to Queensland Rail increasingly relying on other operational levers to supplement rostered train crew supply, which increased operational strain. These levers include reallocating tutors to driving duties, calling in train crew on annual leave and cancelling special event services. These levers are set out in Exhibit 15.

<sup>s</sup> This chart refers to available supply and demand on a given day, rather than total availability. As a result, the supply line may differ slightly from the total amount of drivers.

**Exhibit 15: Operational levers used by Queensland Rail**

	Operational lever	Shifts generated	Impact
↑ Execution complexity	Cancel special event services	0–3	Causes disruptions and uncertainty for customers
	Call in train crew on annual leave	0–3	Defers leave and causes driver fatigue
	Change crewing configurations	0–3	Increases strain on train crew
	Reallocate inspectors to driving	0–3	Reduces capacity to manage and oversee train crew
	Operate without contingency shifts	0–7	Lowers on-time running
	Reduce train preparation shifts	0–8	Increases working hours for drivers
	Reallocate tutors to driving	5–10	May delay driver training
	Allocate work on rostered days off	5–35	Triggers compulsory rest periods

Included in measure of Queensland Rail's operational strain
  Not included in measure of Queensland Rail's operational strain

The increasing reliance on these operational levers contributed to increasing operational strain, shown in Exhibit 16.

**Exhibit 16: Measure of operational strain from January 2014 to December 2016**



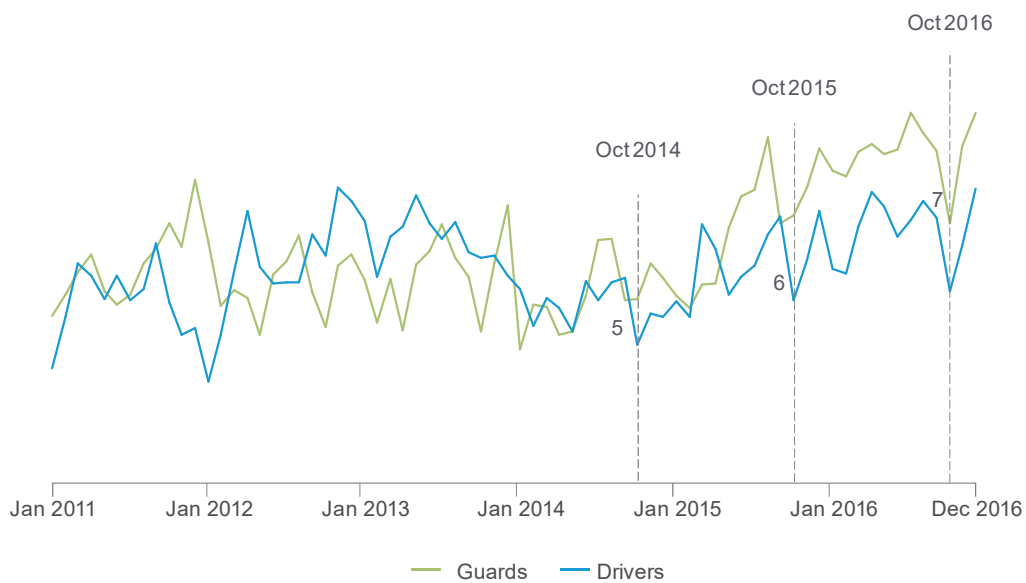
The ongoing reliance on the above factors means that Queensland Rail faces a continued risk of service cancellations. The Commission expects that operational strain will mount in critical periods such as the period leading up to and around Easter 2017, the increase in testing and training for New Generation Rollingstock from April 2017 and the Commonwealth Games in 2018.

In the medium term, this risk can be mitigated by implementing a process to predict whether there will be sufficient train crew to operate a timetable at any given point in time. Other rail operators achieve this by maintaining a rolling plan that incorporates factors that affect staff availability, such as upcoming annual leave, blocked leisure periods and training requirements. With a similar plan, it would have been possible for Queensland Rail to identify staff working increasingly unsustainable levels of overtime following the implementation of the timetable on 4 October 2016 and to anticipate the disruptions experienced on Christmas Day 2016.

Over the longer term, this risk can be addressed by operating with a persistent structural surplus of train crew.

The Commission observes that there has been a notable increase in absenteeism between 2014 and 2016 and that there has been an increased correlation of unscheduled absenteeism of guards and drivers since early 2015. However, the Commission has not identified unscheduled absenteeism as a significant factor in causing the disruptions (Exhibit 17).

**Exhibit 17: Unscheduled absence hours as a percentage of hours from January 2011 to December 2016**



**4.2.2 Restrictions on external recruitment**

Queensland Rail's current recruitment practices require that prospective drivers be recruited from guard ranks, and guards be recruited from other staff. This practice is described in the train crew enterprise agreement.

Restricting recruitment of external applicants creates four challenges:

1. For every driver that Queensland Rail recruits from guard ranks, Queensland Rail must recruit an additional person, typically from other parts of Queensland Rail, to replace that guard. This depletes talent across the organisation and requires Queensland Rail to undertake a further recruitment process to fill vacated positions
2. Restricting the pool of driver applicants to current guards reduces the number of applicants from outside Queensland Rail and limits the number of female applicants due to the demographic of guard ranks
3. Limiting the sources of applicants reduces the competitive nature of the recruitment process and hence the future quality of potential train crew
4. During periods of high demand for guards, guards may be withdrawn from driver schools to operate services, hence elongating training durations.

The Commission notes that other rail operators such as Deutsche Bahn and Sydney Trains have had significant success recruiting drivers and guards from outside their organisations, and have maintained lower average training durations than Queensland Rail.

#### **4.2.3 Reductions in training intakes and tutors**

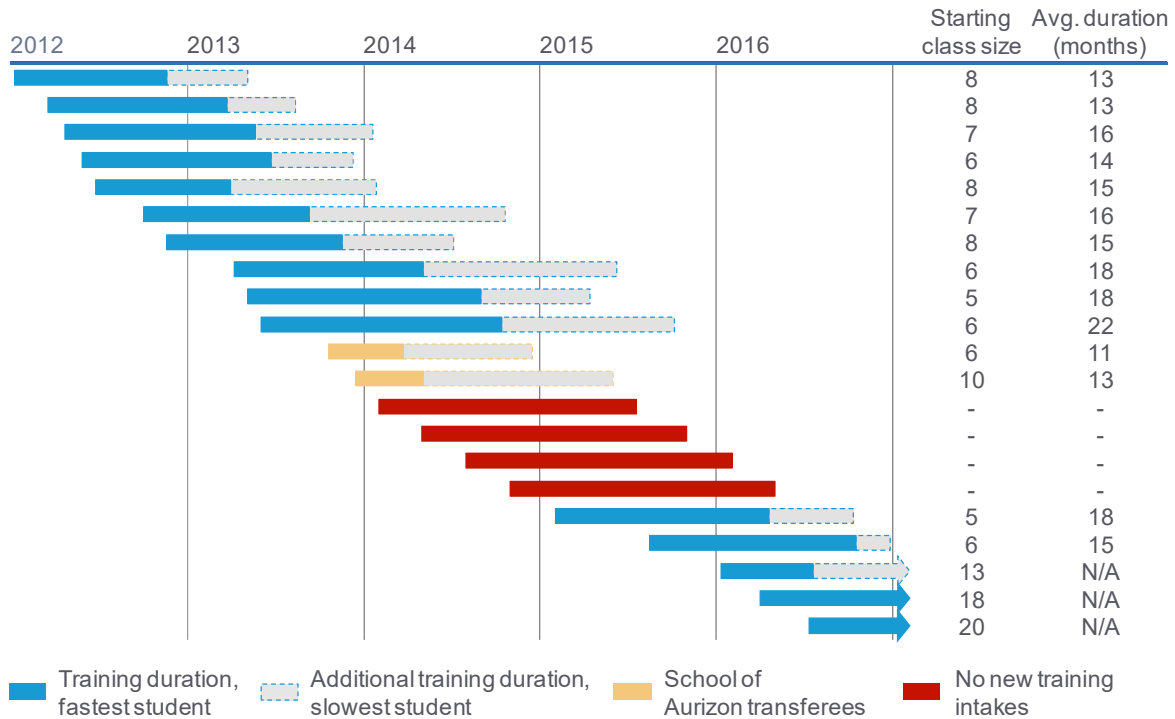
In 2012–13, Queensland Rail initiated an enterprise-wide efficiency program primarily targeted at non-operational staff.<sup>†</sup> Voluntary redundancies were accepted by eight tutor drivers and ten train operations inspectors and drivers-in-charge.<sup>27</sup> This was followed by a suspension of new driver intakes from February 2014, as Queensland Rail expected that productivity improvements would offset any loss in supply from this decision. Although Queensland Rail planned to recommence driver training programs in October 2014, it did not do so until February 2015.<sup>‡</sup> The training intakes are identified in Exhibit 18.

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<sup>†</sup> For the avoidance of doubt, the Commission notes that medical separations were granted to 31 drivers and guards. These departures had limited impact on Queensland Rail's operating capacity, as many of these staff had historically high levels of sick leave and the Commission understands were not actively rostered to operate revenue services.

<sup>‡</sup> The Commission understands that the Chief Executive Officer at the time reached an agreement with the train crew unions that the driver training program would recommence in October 2014. However, he departed the organisation in January 2014.

**Exhibit 18: Driver training intakes<sup>v</sup>**



The Commission has identified that reductions in training programs and tutors was a contributing factor to the undersupply of train crew. Had training not been suspended, Queensland Rail would have had up to 30 more drivers in October 2016. However, there was ample opportunity to recommence or accelerate driver training to ensure sufficient train crew for the launch of the Redcliffe Peninsula Line.

For the avoidance of doubt, while the redundancies and training intake pause coincided with a Government request in 2013 for Queensland Rail to improve efficiency,<sup>28</sup> the Commission has not identified evidence that the Government directed either the reduction of train crew or the suspension of training activities.

**4.2.4 Delayed recruitment and training response**

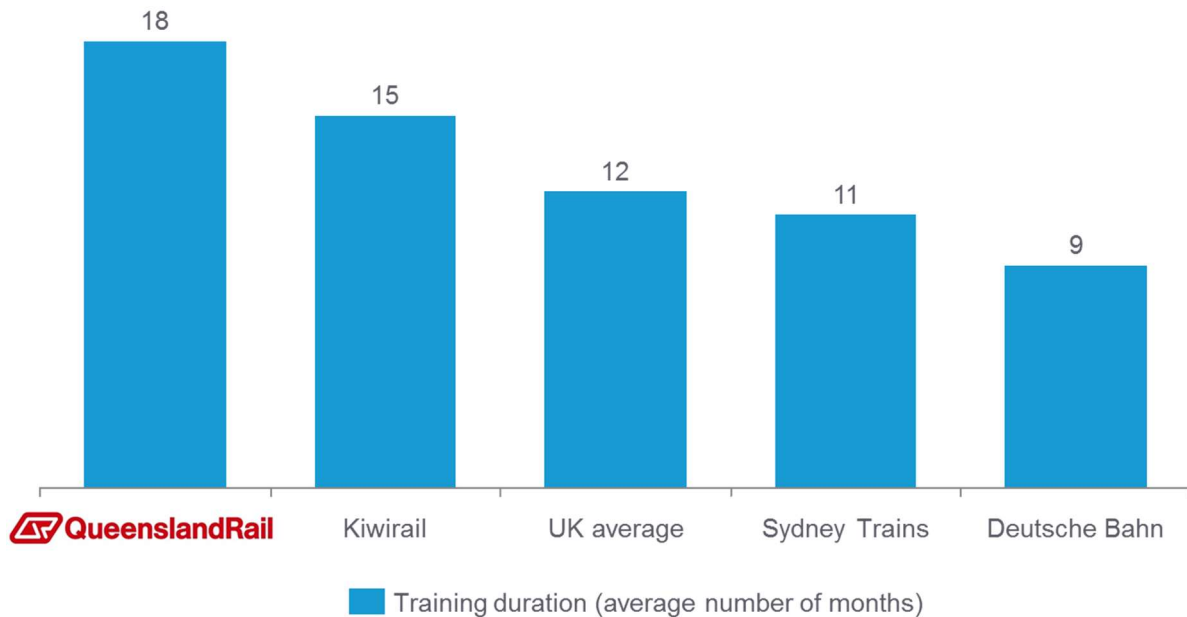
In November 2015, Queensland Rail launched a campaign to recruit 100 drivers and 100 guards to address the risk posed by the long-term undersupply of train crew. While this was a positive step, it would not provide sufficient train crew to meet future demand, for two key reasons.

First, training capacity constraints and delays in filling schools has meant that Queensland Rail is yet to enrol all 100 drivers in training schools.

Second, even if all drivers had been recruited and enrolled immediately, these recruits would not have been available in time for the then scheduled opening of the Redcliffe Peninsula Line in March 2016 as driver training takes an average of 18 months, which compares unfavourably to other rail operators, as set out in Exhibit 19.

<sup>v</sup> The two training schools in late 2013 included drivers from Aurizon.

**Exhibit 19: Average duration of driver training programs of selected rail operators**



The Commission believes that Queensland Rail can accelerate its training programs and thereby realise supply increases earlier by moving to a modern, competency-based training program in line with Australian and global best practices. Common features of such programs include:

1. Clearly defined competency requirements, upper limits on training durations and comprehensive record-keeping of trainee learning and development to ensure candidates progress through training in a timely manner
2. A combination of classroom, on the job, and technology-based training. The integrated and targeted use of technology, such as train driving simulators, is especially important as it enables students to safely and effectively develop route competency, and limits demand on rollingstock and tutors
3. Sectorisation of train crew on the network, which allows recruits to commence driving on particular lines before qualifying to operate on the entire network
4. Rostering discipline to maximise trainee driving hours on relevant routes and ensure the use of tutors for training purposes
5. A management structure with appropriate oversight of tutors and trainees.

#### 4.2.5 Recommendations

The Commission makes seven recommendations to address the supply issues that contributed to the growing train crew shortfall.

10. Deliver and maintain a structural surplus of train crew to enable operations to be conducted without the systemic reliance on overtime, discretionary shifts, and tutors and inspectors in operational capacities

- (a) Target providing agreed service levels without reliance on overtime, to reserve the use of overtime as an operational lever to address unforeseen demand events
  - (b) Ensure recruitment targets are based on realistic assumptions regarding attrition, training durations and graduate yields
  - (c) In the short term, promote part-time working arrangements only to employees at risk of attrition. In the longer-term, complement workforce with part-time employees to more efficiently cater for peaks and demand variability
11. Maintain a rolling eight-week train crew management plan that accounts for all sources of staff requirements and availability, including operational levers such as annual leave, designated leisure periods and compulsory rest periods
  12. Ensure management exercises discretion over granting leave and scheduling leisure periods for train crew to maintain sufficient supply throughout the year
    - (a) Offer to purchase leave from train crew to provide greater short-term flexibility in its supply of train crew
  13. Develop regular reporting and analysis of levels of overtime, sick leave, absenteeism, engagement and attrition to support a continued focus on the health and wellbeing of the train crew workforce. These reports should be shared with the Executive Leadership Team
  14. Open recruitment processes for drivers and guards to external applicants – including applicants with no previous rail experience – to increase the diversity and pool of applicants and expedite progress towards achieving a structural surplus of train crew
  15. Move from intermittent recruitment campaigns to ongoing recruitment and training of drivers and guards with intakes sufficient to meet long-term graduation rates required by the five-year rolling forecast of demand and supply
  16. Introduce modern, competency-based training arrangements in line with Australian and global best practices. This should include enforcing standardised assessment criteria, setting a maximum duration for training, overhauling the training curriculum, increasing the use and quality of train simulators and creating a management structure to provide appropriate oversight of tutors and trainees. Training for drivers should target an average duration of nine months or less

### 4.3 People and processes

Sections 4.1 and 4.2 above detail how train crew demand and supply issues emerged in the years prior to the launch of the Redcliffe Peninsula Line and the introduction of the new timetable on 4 October 2016. While there was awareness of the risk of a train crew shortfall at lower levels of Queensland Rail, it was not well understood at senior levels of the organisation. The Commission has identified five significant people and process issues within the organisation, which prevented it from effectively identifying and responding to this risk:

1. The Train Service Delivery function was focussed on short-term operations
2. The Operations chain of command did not provide sufficient active oversight

3. The Chief Executive Officer relied on risk management processes that were not properly implemented
4. The Board was not appropriately informed about the risk and hence did not report it to the Government or public
5. There was a culture within the Operations team of intuitive decision-making, complacency, and reluctance to sharing bad news.

**4.3.1 Train Service Delivery function was focussed on short-term operations**

Queensland Rail's Train Service Delivery function has primary responsibility for drivers and guards, including planning, rostering and daily management. The Senior Manager Train Service Delivery is responsible for managing this function.

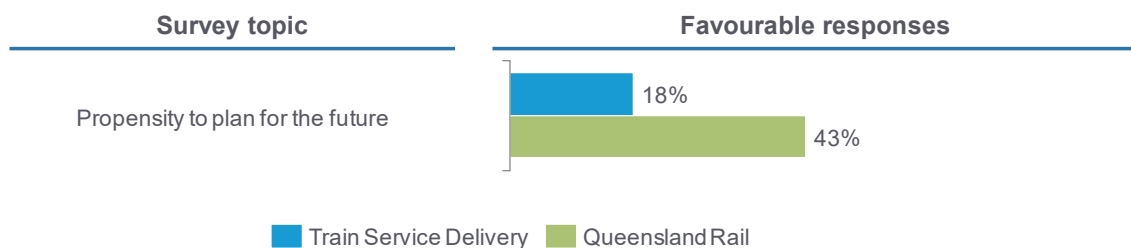
The Commission has concluded that this team focussed on day-to-day operations and the next 58 hour roster at the expense of long-term planning.<sup>29</sup> As a result, the team did not sufficiently foresee and preemptively address the train crew shortfall that manifested in late 2016, despite indications of a risk of a train crew shortfall, including:

- A workforce plan dated March 2015, which projected a deficit of drivers from March 2015 to at least December 2017<sup>30</sup>
- In November 2015, the Roster Allocation Manager in Train Service Delivery identified a potential issue of a driver shortfall with the new timetable and raised this issue to the Senior Manager of the team<sup>31</sup>
- The Indec report<sup>32</sup> identified in February 2016 that the train crew shortfall was a significant risk to the successful delivery of the Redcliffe Peninsula Line and other major projects and operational changes
- A letter from GIRO dated March 2016 outlined that Queensland Rail's "current driver and guard resource levels are not sufficient" to operate the new timetable.<sup>33</sup>

Despite the Senior Manager Train Service Delivery not focussing on long-term planning, he continued providing assurances that there was enough staff to operate the network, including to the Chief Operating Officer<sup>34</sup> and Queensland Rail's internal audit team.<sup>35</sup>

The lack of focus on long-term planning by Train Service Delivery staff was highlighted in a survey conducted in September 2016 (Exhibit 20).

**Exhibit 20: Extract of survey results from Train Service Delivery in September 2016**





### 4.3.2 Operations chain of command did not provide sufficient active oversight

The Train Service Delivery function is overseen by the General Manager Citytrain, who is also responsible for station staff, customer service, Citytrain safety, and security and emergency preparation. The General Manager Citytrain reports to the Chief Operating Officer.

#### General Manager Citytrain

The General Manager Citytrain role was created in July 2014<sup>36</sup> and the current General Manager was appointed in March 2015,<sup>37</sup> after a series of temporary arrangements.<sup>38</sup> While the General Manager did not have the operational experience initially sought for the role, she was recognised as a particularly high-performing manager and suitable for the role.

The General Manager Citytrain acknowledges that she became aware by May 2015<sup>39</sup> that the Citytrain division operated with a shortfall of train crew. The General Manager also became aware that these issues were worsening. In response to these concerns, the General Manager initiated the recruitment of 100 drivers and 100 guards in November 2015 and increased the size of training schools to support these new intakes.<sup>40</sup>

While these were positive and necessary steps, they were unfortunately triggered too late. In November 2015, it was expected that the Redcliffe Peninsula Line would open in April 2016. However, delays to intakes and long training durations meant that most graduates from the November 2015 intake would not be available to operate services until 2017.

The Commission considers that, from late 2015, the risk of insufficient train crew for the launch of the Redcliffe Peninsula Line should have been escalated and more substantial measures taken. This does not appear to have occurred, evidenced by the fact that train crew risks were not escalated above "medium" in the corporate risk register until after the October 2016 disruptions.<sup>41</sup> As a result, the broader organisation was not aware of the significance of the risk and may have believed that any shortfall would be addressed by the much-publicised increase in recruitment and training activity.

#### Chief Operating Officer

Emerging train crew risks were also not resolutely acted upon by the Chief Operating Officer. The Commission has identified four key reasons for this.

First, in the Commission's view, the Chief Operating Officer did not seek sufficient confirmation of the adequacy of train crew supply, despite having over 50 years experience in railways operations<sup>42</sup> and having faced similar issues in the past. Instead, despite growing indications of concerns regarding train crew supply, the Chief Operating Officer readily accepted assurances that there would be "no staffing issues to implement the new timetable".<sup>43</sup>

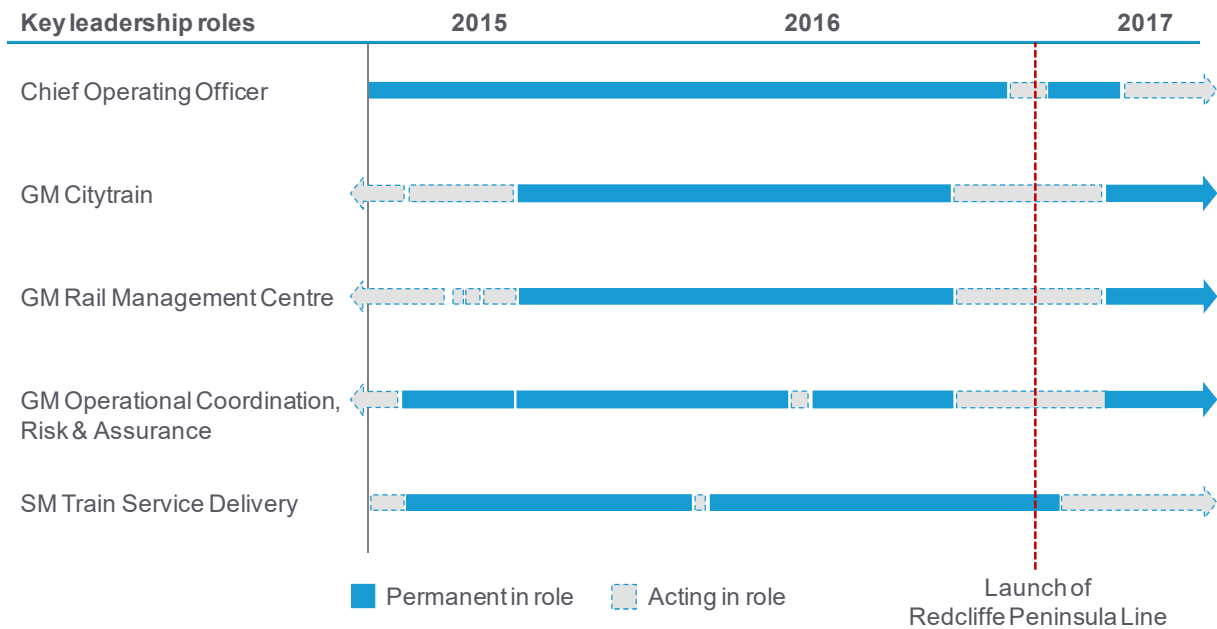
Second, the Chief Operating Officer did not address the lack of long-term planning capacity in Train Service Delivery.

Third, the Chief Operating Officer's team lacked sufficient stability of leadership. By way of example, the General Manager Citytrain was asked to act as General Manager Rail Management Centre and Operations from July 2016, three months prior to the implementation of the new timetable and the opening of the Redcliffe Peninsula Line. Also, the Chief Operating Officer was abroad during the opening of the Redcliffe Peninsula Line, and three of his direct reports were operating in acting arrangements. The practice of backfilling staff from other teams in Operations, rather than direct reports from the affected teams, further diminished the stability of the leadership group during a time of strain for the organisation. This practice may have been driven by a lack of long-term management and succession planning within Operations, as identified in a 2016 report, which highlighted that there were:

- Few strong potential successors to the Chief Operating Officer, which Queensland Rail's People and Safety Committee noted should "be a railway person with significant industry experience".<sup>44</sup> The most highly rated internal candidate was assessed as not ready for the role for another 3 to 5 years and not having operational rail experience,<sup>45</sup> despite this being a prerequisite for the role. The Commission has identified that there is a significant risk that it would be difficult to develop an adequate internal successor to the Chief Operating Officer role given the broad functions of the role
- Insufficient talent in the Operations Senior Leadership Team to develop the pipeline required to support effective succession planning.<sup>46</sup>

The turnover among key management roles in the Operations structure is set out in Exhibit 21.

**Exhibit 21: Continuity of roles of key Operations staff from 1 January 2015 to 31 December 2016**



Fourth, the Chief Operating Officer did not report to the Chief Executive Officer and Board the risk of a train crew shortfall as it emerged. By way of example, while the Indec report identified significant risks of ongoing train crew shortfalls and structural challenges within Queensland Rail, this report was not shared with the Board, either in full or in summaries.

The former Chief Operating Officer submitted to the Commission he had attempted to address challenges with train crewing practices and systems for many years, but that his efforts had proved unsuccessful.

The Commission recognises that the broad accountabilities of the Operations role may have contributed to the ineffective oversight and management of the train crew deficit. The Commission considers that there are opportunities to address these issues by:

- Reviewing the responsibilities of the Chief Operating Officer and replacing this role with two Executive General Managers focussed on the core passenger-facing products: Citytrain, and Travel and Tourism
- Reducing organisational layers from seven to five to improve information flows and issue escalation

- Increasing the ratio of supervisors to train crew in Operations by 25 to 50 per cent and formalising the role of train operations inspectors in the management structure, to improve oversight and effective management
- Elevating Safety, Assurance and Environment to be a direct report to the Chief Executive Officer, to ensure continued focus on safety
- Integrating the Rail Management Centre, which is responsible for longer-term timetable planning and day-of-operations responses, and Citytrain, which is responsible for crewing, to ensure integrated workforce management
- Confirming Human Resources is accountable for train crew training, to enable operating divisions to focus on service delivery.

#### **4.3.3 Chief Executive Officer relied on risk management processes that were not properly implemented**

The Commission has identified that the former Chief Executive Officer was aware of the organisation's preference to operate with an ongoing train crew shortfall,<sup>47</sup> but was not made aware that the shortfall was increasing and posed a growing risk to operations.

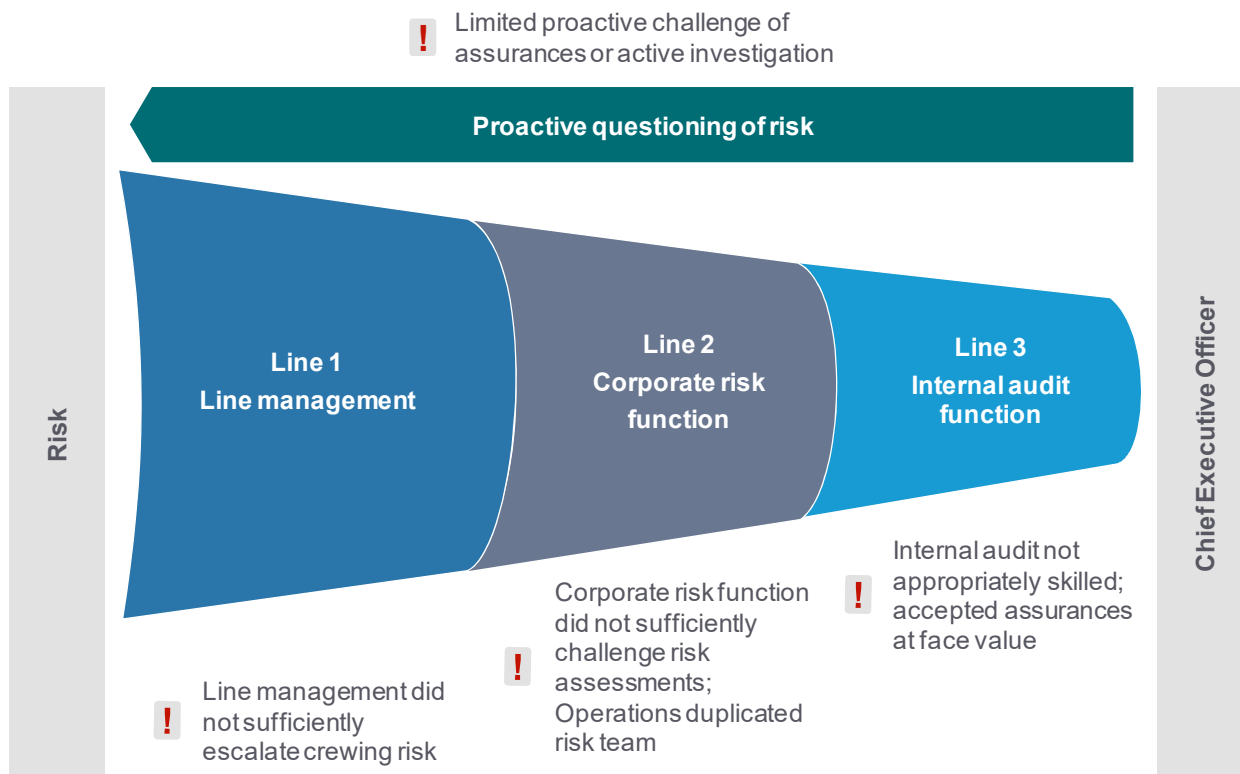
However, it does not appear that Queensland Rail's Chief Executive Officer proactively challenged assurances or actively investigated whether adequate measures were being undertaken to manage the potential risk of a train crew shortfall. Rather, the Chief Executive Officer expected that the Chief Operating Officer would be monitoring and addressing train crew issues<sup>48</sup> and that the Chief Operating Officer would "ensure that the staffing numbers [for the opening of the Redcliffe Peninsula Line] were correct".<sup>49</sup>

At Queensland Rail, the Chief Executive Officer appears to have primarily relied on managers to proactively raise issues where appropriate. This approach was supported by a three lines of defence approach to risk management,<sup>50</sup> which is often successfully used in large, complex businesses. In Queensland Rail's case, there were significant challenges with the implementation of each of these lines of defence. This is because:

- Line management, the first line of defence, did not actively escalate and resolve risks as appropriate. For example, the risk of insufficient train crew was not revised – despite new information becoming available – until 8 November 2016,<sup>51</sup> which was after the disruptions in October 2016
- The corporate risk function, the second line of defence, did not sufficiently challenge risk assessments and the adequacy of mitigating plans. It instead relied on assurances provided by the duplicated risk team within the Operations division, which reported directly to the Chief Operating Officer, accepted the assurances of the Chief Operating Officer without challenge<sup>52</sup> and therefore did not provide an independent view
- The internal audit function, the third line of defence, did not appropriately assure that the risk management framework operated effectively. Although it did identify some concerns of a shortfall of train crew,<sup>53</sup> it too readily accepted the assurances of line management without detailed evidence, and hence did not escalate the risk to the Chief Executive Officer or Board. The effectiveness of the internal audit function was independently assessed in a 2015 report, which cited an internal view that internal audit was "inexperienced", does not know "the right questions to ask" and "would be easy to bluff".<sup>54</sup>

Exhibit 22 sets out the deficiencies in the application of the three lines of defence and how these undermined the efficacy of the risk management framework in this instance.

### Exhibit 22: Deficiencies in the application of Queensland Rail's risk management framework to train crewing



As a result of the inadequacies in the execution of Queensland Rail's risk management processes, it was only on 1 October 2016 that the Chief Executive Officer became aware of the seriousness of the train crewing deficit, after being forwarded an email<sup>55</sup> detailing the extent of the issue. This email identified that Queensland Rail then had a shortfall of approximately 62 drivers and 83 guards and that the timetable to be implemented on 4 October 2016 would exacerbate the shortfall of train crew. On 1 October 2016, the Chief Executive Officer received assurances from the Acting Chief Operating Officer that Queensland Rail "had sufficient crew to run the new timetable"<sup>56</sup> and that "a major cause of the shortages was the piloting and training, which could be swiftly resolved".<sup>57</sup>

In recruiting a new Chief Executive Officer, Queensland Rail should ensure that candidates are clearly able to deliver on customer outcomes, achieve Queensland Rail's strategic and operational priorities, refresh Queensland Rail's organisation and leadership, and act as an effective interface with key stakeholders. The new Chief Executive Officer should be willing to deliver the organisational transformation, which may take up to three years, and provide continuity of management into steady-state operations. Once the new Chief Executive Officer has confirmed the members and roles of the Executive Leadership Team, he or she should seek to maintain continuity of these managers, insofar as possible, to ensure effective oversight of Queensland Rail.

#### 4.3.4 The Board was not appropriately informed about the risk and hence did not report this to the Government or public

The Commission believes that Queensland Rail's management did not appropriately inform the Board about the magnitude of the train crew shortfall risk. For example:

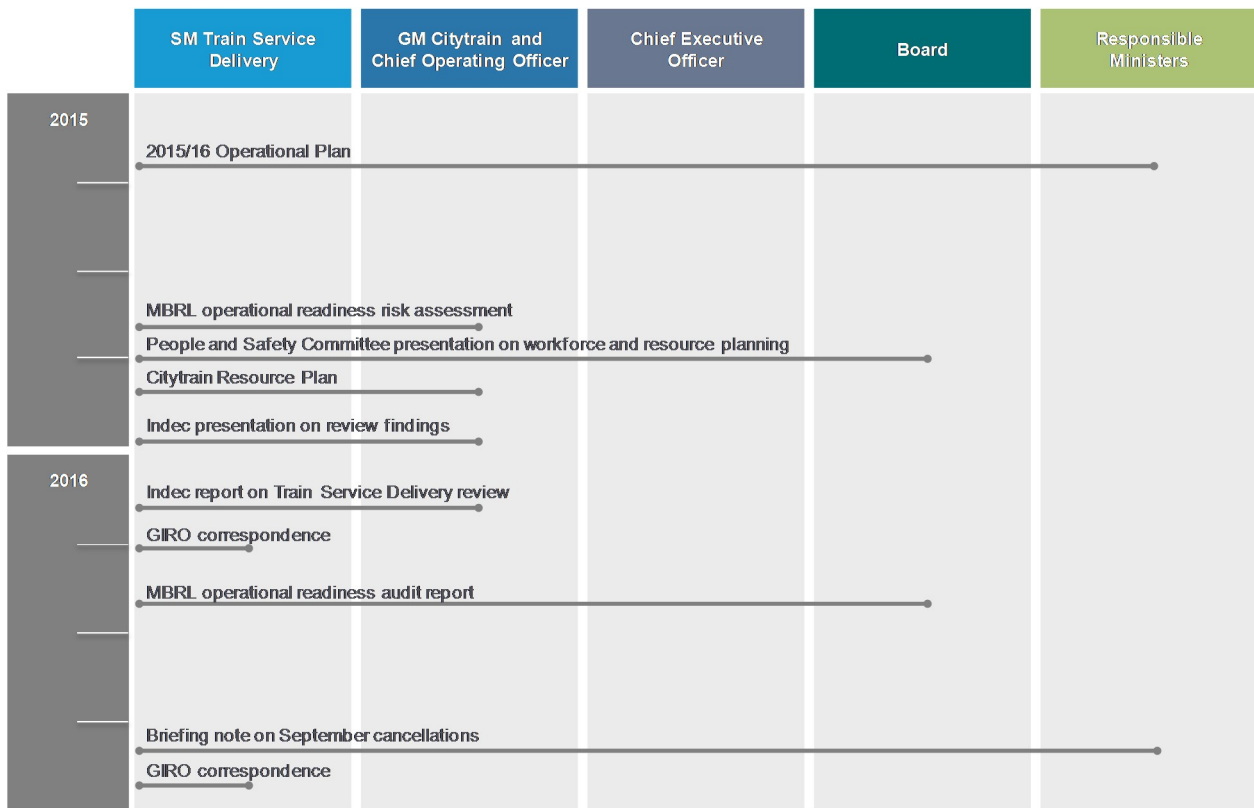
- The 2015/16 Operational Plan, which sets out Queensland Rail's operational objectives, identified plans to recruit an additional 80 new train crew to support services on the Redcliffe Peninsula Line. However, this did not identify a deficit of train crew as a risk to the successful delivery of the new line
- The People and Safety Committee presentation on workforce and resource planning in September 2015 forecast a shortfall of staff in Citytrain. However, this was not highlighted sufficiently and the announcement in November 2015 of a recruitment campaign for 100 drivers and 100 guards may have reasonably led the Board to conclude the matter was under control
- Critical documents emerging in 2016, such as the Indec report and letters from GIRO, were not shared with the Board
- The Internal Audit report in May 2016 was shared with the Board but seemingly concluded that there were no issues with availability of train crew to operate the Redcliffe Peninsula Line.

As the Board was not made aware of the issue, it was not able to appropriately report this to the Government.

The first instance the Commission has identified of Queensland Rail escalating to Government the existence of the train crew deficit was when the Chief Executive Officer sent an email to the Minister for Transport's Chief of Staff on 2 October 2016, attaching a draft, informal briefing note "for preliminary information only".<sup>58</sup> The draft briefing note contained information sent to the Chief Executive Officer on 1 October 2016 and identified that while Queensland Rail can ordinarily manage a shortfall of 25 to 30 sets of train crew, the shortfall was approximately 62 drivers and 83 guards. This briefing was accompanied by an assurance that Queensland Rail did not expect cancellations similar to those experienced on 30 September 2016.<sup>59</sup>

The extent of communication throughout the Operations division and to the Board and Government is set out in Exhibit 23.

Exhibit 23: Train crew issue reporting flows



For the avoidance of doubt, the Commission has concluded that the Responsible Ministers were not appropriately informed of the risk of a train crew shortfall prior to the opening of the Redcliffe Peninsula Line nor of the magnitude and longevity of the issues faced from October 2016.

The absence of effective reporting systems inhibited the timely reporting of operational matters to Government and day-of-operations issues to TransLink. The Commission considers that Queensland Rail should provide more information about its recovery and potential disruptions to its customers. Since the first disruptions in late 2016, neither TransLink nor the public have been provided with sufficient warning about upcoming cancellations, reducing opportunities to make alternative travel arrangements. Improved communication should be seen as a key priority for the organisation as it moves forward.

Furthermore, other organisations use a quantitative, action-oriented, issues-focused, high-frequency reporting Lean Management System that incorporates key performance indicators to ensure effective performance management. Queensland Rail should adopt such an approach.

#### 4.3.5 There was a culture within the Operations team of intuitive decision-making, complacency, and reluctance for sharing bad news

Over the course of its inquiry, the Commission identified three cultural issues within Operations that contributed to inadequacies in Queensland Rail's operations and train crewing practices. These were evident even without the Commission undertaking a comprehensive assessment of Operations' organisational culture. While the identified issues are prominent, this does not preclude the existence of further cultural issues across the broader organisation.

First, there is an overreliance on managerial intuition in Operations, at the expense of using data when making decisions. Although the risk of a train crew shortfall was identified as early as 2013 – and was projected to increase – these forecasts were not acted on or used to inform responses to address the growing shortfall. Furthermore, detailed quantitative analysis was rarely performed in risk management processes.<sup>60</sup>

Second, there was a culture of complacency, rather than taking proactive steps to understand and address the causes of prior operational issues. By way of example, the issues that contributed to the disruptions on 21 October 2016 – such as ineffective medium-term management of train crew supply and demand – were also significant factors of the Christmas Day 2016 disruptions. For example:

- Queensland Rail considered downgrading services on Christmas Day 2016 to operate hourly rather than half-hourly, but did not do so<sup>61</sup>
- Queensland Rail also considered introducing the summer timetable a week earlier, but ultimately did not do so<sup>62</sup>
- The risk of insufficient crew due to leave arrangements was not fully understood until after the 58-hour roster was posted.<sup>63</sup>

The Commission considers that Queensland Rail should implement processes to ensure it reviews and learns from such operational issues. Until this occurs, there will remain an ongoing risk that similar issues will emerge again.

Third, the Commission identified a reticence within Operations to share bad news. For example:

- The template used by the Chief Operating Officer function to brief the Board has a positive skew and sought "high level" input from managers<sup>64</sup>
- References to the Indec report in reports that were to be provided to the Board did not mention the risk of a train crew shortfall, but rather only identified that consultants were engaged to review Train Service Delivery<sup>65</sup> and that the review identified "business improvement recommendations"<sup>66</sup>
- The Commission identified a preference of Operations staff for addressing shortfalls using day-of-operations levers, rather than escalating issues outside Operations.<sup>67</sup>

#### 4.3.6 Recommendations

The Commission makes 15 recommendations to Queensland Rail.

17. Immediately confirm that the Senior Manager Train Service Delivery is accountable for managing supply, demand and responses to projected train crew shortfalls for at least the rolling eight-week forecast period, and assess the skill set required to perform this role
18. Clarify, systematically assign and document accountabilities for all train crew processes, including forecasting, recruitment, training, rostering, day-of-operations and people management
19. Encourage and acknowledge early and proactive internal escalation of potential issues to senior management
20. Minimise executive absences during periods of significant change, such as the introduction of a new timetable or the commissioning of an extension to the network



21. Rely primarily on subordinates rather than peers to fill roles where temporary relief is required to maintain continuity of management and support learning and development
22. Eliminate the Chief Operating Officer role and replace it with an Executive General Manager responsible for passenger rail in South East Queensland and an Executive General Manager responsible for Travel and Tourism, to increase the Chief Executive Officer's visibility and focus on the operational businesses. In redesigning the organisation structure, Queensland Rail should also:
  - (a) Minimise organisation layers in the residual organisation – targeting a maximum of five layers from the Chief Executive officer to frontline operations – to improve information flows and issue escalation
  - (b) Elevate Safety, Assurance and Environment to be a direct report to the Chief Executive Officer
  - (c) Integrate the Rail Management Centre and Citytrain into a single operational unit
  - (d) Increase the ratio of supervisors to train crew significantly to improve the relationship and information flow between management and train crew
  - (e) Ensure the Human Resources function is accountable for train crew training
  - (f) Eliminate duplication between divisions and functions
23. Implement a Lean Management System throughout Queensland Rail, including structured quantitative and visual reporting against annual operating plans and other operational metrics. The Chief Financial Officer should have accountability for monitoring and reporting on implementation
24. Overhaul Queensland Rail's risk management approach to improve the effectiveness of all three lines of defence, including ensuring line management is capable of managing day-to-day risks, consolidating corporate risk functions and relying primarily on independent providers to undertake internal audits

To ensure the adequacy of its processes, including scheduling, rostering, train crewing, recruitment and training, Queensland Rail should:

- (a) Ensure line management engages in risk management processes through training, and preparing and managing risk registers as an integrated part of their day-to-day role
- (b) Consolidate the risk team within Operational Coordination, Risk and Assurance from the Chief Operating Officer division into the corporate risk function under the Executive General Manager Governance, to ensure its independence
- (c) Strengthen the capability of the internal audit function by primarily outsourcing it to an independent provider, while retaining in-house capabilities to oversee the deployment of the audit program
- (d) Ensure coverage of the risk and audit program includes major projects being executed for Queensland Rail by other parts of government



25. Ensure in its current search for a new Chief Executive Officer that candidates demonstrate the following attributes:
- (a) Strong customer service focus
  - (b) Significant operational experience, preferably in a world-class passenger transport organisation
  - (c) Track record of delivering large transformation programs
  - (d) Proven capacity to drive cultural change
  - (e) Proven ability to operate successfully in a complex stakeholder environment
  - (f) Prepared to serve a term of at least five years

26. Undertake an assessment of the capabilities of the Executive and Senior Leadership teams, and, if inadequacies are identified, develop or recruit necessary capabilities

In seeking to develop or recruit capabilities, Queensland Rail should:

- (a) Recruit staff with experience in other rail, passenger transport or logistics organisations
- (b) Promote diversity within its management talent
- (c) Ensure robust succession planning and talent pipeline
- (d) Balance providing continuity of Queensland Rail's leadership with integrating new talent

27. Implement regular reporting on train crew demand, supply and shortfall initiatives to Queensland Rail's Executive Leadership Team, Board and the Responsible Ministers. This should occur each month for at least the duration of the recovery program

Queensland Rail should, at a minimum:

- (a) Provide reports on train crew demand, supply and shortfall initiatives to its Executive Leadership Team and Board each month and the Responsible Ministers every three months
- (b) Provide a comprehensive report to its Executive Leadership Team, Board and Responsible Ministers each year detailing comprehensive workforce plans that set out train crew demand, supply and initiatives to address shortfalls in train crew, if a shortfall exists
- (c) Ensure all communications addressing train crew demand, supply and shortfall initiatives should at a minimum:
  - (i) Use quantitative information to clearly outline the supply, demand and shortfall over time
  - (ii) Identify the actual shortfall forecast and the maximum possible shortfall of train crew for each period
  - (iii) Identify all relevant drivers of demand and supply

- (iv) Outline initiatives to address shortfalls
  - (v) Incorporate sensitivity analyses that assess the impact of key drivers of supply and demand
- (d) Provide to the Executive Leadership Team, Board and Responsible Ministers – where there are major upcoming projects within the following 18 months – detailed and targeted reporting on a monthly basis that outlines staffing requirements for train crew and other key operational groups
  - (e) Publish its recovery plan on its website each month until services are restored to the level agreed for the 4 October 2016 timetable. These publications should detail its progress implementing the five-point plan and the expected date for operationalising a full timetable
28. Overhaul communications to Government, including simplifying and streamlining matters reported, using more quantitative information, proactively reporting potential issues of substance with sufficient lead time for action
  29. Implement transparent and timely reporting to TransLink and the public regarding operational issues that are affecting, or may impact, service delivery, to enable customers to plan alternative travel arrangements. This information should be available in real time at stations, online and through the call centre
  30. Implement a communications plan with immediate effect to restore public confidence in the Citytrain network
  31. Conduct a comprehensive cultural assessment and develop a multi-year action plan to foster a culture of excellence in customer service, transparency and proactivity

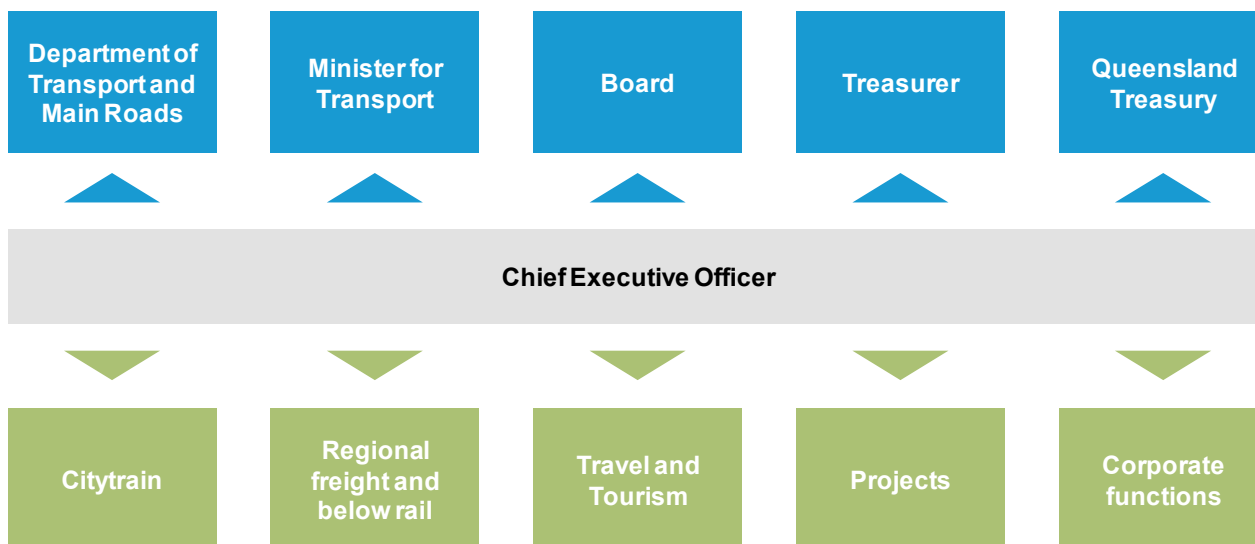
#### 4.4 Governance and institutional structure

The Commission identified two main ways in which Queensland Rail's governance and institutional structure contributed to the train crew risk not being appropriately identified and addressed:

1. Complex and ineffective governance complicated the task of management and took attention away from operations
2. Queensland Rail's broad and complex portfolio of businesses meant the Chief Executive Officer had limited focus to give to Citytrain's operations.

Exhibit 24 shows the complex governance and business environment faced by Queensland Rail's Chief Executive Officer. Aside from the separation of QR National in 2010, this structure has remained largely unchanged since Queensland Rail was established as a government owned corporation in the 1990s.

**Exhibit 24: Governance and business environment faced by Queensland Rail's Chief Executive Officer**



#### 4.4.1 Complex and ineffective governance

Five different bodies play a role in governing Queensland Rail, namely the Minister for Transport, the Treasurer, the Department of Transport and Main Roads, Queensland Treasury, and the Queensland Rail Board.

The *Queensland Rail Transit Authority Act 2013 (the QRTA)* and other legislation set out the responsibilities of each, which are outlined below:

- The Minister for Transport is responsible for approving transport strategies and plans prepared by the Department of Transport and Main Roads
- The Treasurer and the Minister for Transport are jointly responsible for administering the QRTA, approving major investments, appointing Board members and approving the appointment of the Chief Executive Officer
- The Department of Transport and Main Roads is responsible for developing policy, purchasing services, regulating, undertaking long-term planning and delivering major project
- Queensland Treasury is responsible for approving investment and managing financial performance
- The Board is responsible for determining the strategies and policies of Queensland Rail, setting performance measures and monitoring performance.

The Commission has concluded that these complex governance arrangements contributed to the systemic train crewing issues in four key ways.

First, this complex structure required the Chief Executive Officer to spend a substantial amount of time managing the Board and Government stakeholders. This left limited time to understand and address important operational issues.

Second, the Board appears to have had limited opportunities to oversee train crewing matters. For example, the Commission notes that the Board was not asked to formally approve either the in-principle acceptance

of the 2016 Train crew Enterprise Agreement or the timetable change in January 2017, despite the significant impact these changes would have on train crewing requirements.

Third, there is a lack of clarity around the remits of each responsible minister and how their respective departments should engage with Queensland Rail. This has complicated reporting and decision-making and has also limited each department's ability to provide expert advice.

Fourth, the Commission notes several issues in the way the Redcliffe Peninsula Line project and new timetable introduction were managed and coordinated between Queensland Rail and the Department of Transport and Main Roads, which held primary responsibility for the delivery of the Redcliffe Peninsula Line:

- These major projects were not managed as an integrated program and hence did not have overarching program governance nor full visibility of interdependencies
- Governance bodies in some cases lacked clearly defined responsibilities or decision-making focus
- The Commission understands that Queensland Rail's Chief Executive Officer only attended one steering committee meeting throughout the course of the project, and instead delegated this accountability. This reduced the Chief Executive Officer's direct involvement in Queensland Rail's operational readiness
- Queensland Rail's operational readiness for delivering the new timetable was not adequately challenged or assured. This contributed to the train crew risk not being identified.

#### **4.4.2 Broad and complex portfolio led to insufficient focus on Citytrain operations**

The Commission notes that Queensland Rail is a large and complicated portfolio of businesses, consisting of:

- Citytrain, a high frequency, vertically-integrated metropolitan commuter rail business
- Traveltrain, a long distance, above rail, regional passenger and tourist business
- Regional Network and Freight, a regional network maintenance business selling access to above rail operators and managing more than 6,500 kilometres of track.

The diversity and complexity of this portfolio makes it difficult for the Chief Executive Officer and the broader leadership team to provide sufficient focus to each business. For example, Queensland rail's leadership team must provide constant vigilance and operational focus to the Citytrain business to ensure over 900,000 passenger journeys conclude safely and reliably each week. Although this is already a demanding responsibility on its own, the leadership team must also oversee all aspects of running Traveltrain services, even though it carries less than 2 per cent of the passengers Citytrain does.

The Commission notes that in many other jurisdictions, such as Victoria, New South Wales, the United Kingdom and much of North America, regional, metro and freight services are delivered by separate, focussed organisations. The Commission believes there is an opportunity for Queensland Rail to learn from such models.

#### **4.4.3 Looking ahead**

Queensland Rail is not alone in facing the above issues. In fact, most other jurisdictions have experienced similar challenges in ensuring clear governance arrangements and an institutional focus on metropolitan commuter rail services.

For example, given its scale and performance record, Transport for London is frequently regarded as a best practice model by public transport organisations around the world. Under its model, Transport for London is accountable for delivering and integrating most metropolitan transportation services in Greater London. It has a separate entity dedicated to managing long-distance, inter-city rail services.

A similar model has been implemented in New South Wales, where metropolitan commuter rail services are delivered by Sydney Trains and long distance passenger rail services are delivered through NSW TrainLink. Both these entities report to the Secretary of Transport for New South Wales and neither have multiple responsible ministers or a Board. Importantly, Sydney Trains is an operator and maintainer only and does not deliver major projects, conduct long-term planning or own the underlying assets. This allows Sydney Trains to focus on operations and delivering exemplary customer service.

Case studies provided in the appendices explore the models of Transport for London and Transport for New South Wales in more detail.

While the history and context of Queensland is different to both those jurisdictions, the Commission believes there is significant merit in revisiting the governance and institutional arrangements for Queensland Rail with the objectives of:

- Simplifying the governance of Queensland Rail to ensure absolute focus on its transformation
- Creating a separate and clear focus on delivering high quality metropolitan commuter rail services for the people of South East Queensland
- Clarifying the various relationships between the Department of Transport and Main Roads and Queensland Rail
- Balancing simplified governance, strong customer focus and financial objectives
- Supporting successful delivery of major projects on the horizon, including the New Generation Rollingstock, new infrastructure and services for the Commonwealth Games, the European Train Control System, and the commissioning of the Cross River Rail project.

While the governance of Queensland Rail was reviewed in 2016 and that this report may have been correct at that time, the Commission has identified systemic issues in Queensland Rail that warrant further reviewing and simplifying governance arrangements to ensure Queensland Rail's focus on operational drivers. Furthermore, roles and responsibilities within Queensland Rail and the interfaces between Queensland Rail and the government are unclear and have limited the effective oversight of the development and implementation of major projects.

In light of the findings made in this report, the Commission considers Queensland Rail's governance and institutional arrangements now require further review and change to ensure acceptable levels of customer service.

Addressing these challenges should see Queensland Rail recover from its disruptions significantly more quickly, while delivering better long-term outcomes for its customers.

#### 4.4.4 Recommendations

The Commission makes five recommendations to Government to address identified governance issues.

32. Clarify reporting practices to the Responsible Ministers, including:
  - (a) Ensuring operational and policy matters are reported to the Minister for Transport, through the Department of Transport and Main Roads
  - (b) Ensuring reporting to the Treasurer is focussed on financial matters, through Queensland Treasury
  - (c) Proactively managing adherence to these practices and incorporating any changes arising out of recommendation 36
33. Confirm that the Department of Transport and Main Roads has accountability for all major capital projects and significant timetable changes, and ensure that Queensland Rail remains accountable for operational readiness and project acceptance
  - (a) Request the Department of Transport and Main Roads to develop a protocol specifying the size and complexity of projects for which it is to be the lead delivery authority. It is anticipated that only few projects will meet these criteria
  - (b) Require the Department of Transport and Main Roads to validate Queensland Rail's operational readiness assessment
34. Mandate that program boards for major capital projects and significant timetable changes are led by the Department of Transport and Main Roads and have clear accountability for oversight, decision making and execution of program deliverables
  - (a) Require Queensland Rail's Chief Executive Officer to attend program board meetings
  - (b) Ensure that, where a major timetable change is implemented, this is delivered as the overarching program to ensure an integrated view of all impacts and interdependencies
35. Establish a Rail Review Office to monitor, independently audit and report on the implementation of Queensland Rail's response and recovery plan and the agreed recommendations of the Commission
  - (a) Release public progress reports each quarter, commencing with the announcement of agreed recommendations
36. Task the Rail Review Office with leading reviews of the governance, legislative framework and structure of passenger rail service delivery in Queensland. These reviews should consider the appropriate operating model and accountability for public transportation services in light of forthcoming major changes, such as the introduction of the New Generation Rollingstock, the Commonwealth Games, European Train Control System and Cross River Rail. As a starting point, the Rail Review Office should undertake four key reviews:
  - (a) Assess, make recommendations on and oversee the implementation of a closely integrated public transport service developed based on leading models of such integrated organisations

- (b) Assess the requirement for, and composition of, a Board of Queensland Rail
- (c) Define accountabilities for Queensland Rail's long-term industrial relations strategy, ensuring alignment with its long-term business strategy
- (d) Undertake a whole-of-business review of Queensland Rail to identify any systemic organisational issues and develop actions to address these issues.

## 5 Appendices

### Appendix 1 Terms of reference

*Commissions of Inquiry Act 1950*

#### COMMISSIONS OF INQUIRY ORDER (No. 2) 2016

##### 1 Short title

This Order in Council may be cited as the *Commissions of Inquiry Order (No. 2) 2016*.

##### 2 Commencement

This Order in Council commences on 24 November 2016.

##### 3 Appointment

The Governor in Council hereby appoints Mr Phillip Strachan to conduct in an independent manner an inquiry into:

- (a) circumstances leading up to and associated with the current disruptions to the CityTrain timetable including:
  - (i) the adequacy of Queensland Rail scheduling, rostering, training, crewing, recruitment and training practices, including arrangements put in place to support the new timetable that commenced 4 October 2016;
  - (ii) what circumstances led to any inadequacies identified under paragraph (a)(i) above;
  - (iii) when deficits in train crew availability were known about and what action was taken ahead of the commissioning of the Redcliffe Peninsula line to address these issues; and
  - (iv) the nature and suitability of actions taken by Queensland Rail once the train crewing issues manifested under the new timetable.
- (b) implementation of the five-point plan to restore timetabled services and public confidence in Queensland Rail timetabling including:
  - (i) progress with the recruitment and training of the additional 200 drivers (100 approved in November 2015, and 100 announced on 24 October 2016) and 200 additional guards (100 approved in November 2015, and 100 announced on 24 October 2016);
  - (ii) future demand and supply requirements for train crew, including for the crewing of New Generation Rollingstock;
  - (iii) ensuring the suitability of current and proposed Queensland Rail recruitment practices to address the issues referred to in paragraph (b)(ii) above;
  - (iv) the development and delivery of the interim timetable; and
  - (v) the suitability of arrangements and timeframes to transition from the interim timetable to the full timetable.



#### 4 Procedure

The person appointed to conduct the inquiry—

- (a) may receive any document or other material relevant to the terms of reference that he considers appropriate;
- (b) may conduct interviews with any person who has information relevant to the terms of reference either with the person's consent or pursuant to a requirement under section 5 of the *Commissions of Inquiry Act 1950*;
- (c) may not conduct hearings; and
- (d) may conduct proceedings using any technology that allows reasonably contemporaneous and continuous communication.

#### 5 Report

- (a) The person appointed to conduct the inquiry shall make full and faithful report on the terms of reference and transmit it to the Honourable the Premier and Minister for the Arts by 31 January 2017.
- (b) The person appointed to conduct the inquiry shall provide progress reports and findings as directed by the Premier.
- (c) The report should include any recommendations about the matters within the terms of reference.

#### 6 Application of Act

Pursuant to section 4(2) of the *Commissions of Inquiry Act 1950*, it is declared that the following provisions of that Act apply for the purposes of the inquiry—

section 5 (Power to summon witness and require production of books etc.)

section 14(1A) (Self-incrimination privilege not an excuse for failing to answer question or produce document)

section 14A (Statements made by witness not admissible in evidence against the witness)

section 14B (Protection to and liability of witnesses)

section 16 (Power to prohibit publication of evidence)

section 17 (Commission not to be bound by rules as to procedure or evidence)

section 19 (Powers of inspection)

section 19B (Custody of documents)

section 20 (Protection for participants)

section 25 (Offences)

section 31 (Commission may make separate reports)

section 32 (Reports may be tabled)

section 32A (Disclosure of particular information only if reasonable)

section 32B (Confidentiality of information)

## 7 Definitions

In this order in council—

***terms of reference*** means the subject-matter specified in paragraph 3.

### ENDNOTES

1. Made by the Governor in Council on 24 November 2016.
2. Notified in the Gazette on 25 November 2016.
3. Not required to be laid before the Legislative Assembly.
4. The administering agency is the Department of the Premier and Cabinet.

## Appendix 2 Reconciliation of terms of reference to report structure

Terms of reference	Primary report section
<b>1. Circumstances leading up to and associated with the current disruptions to the Citytrain timetable</b>	
(a) The adequacy of Queensland Rail scheduling, rostering, training, crewing, recruitment and training practices, including arrangements put in place to support the new timetable that commenced 4 October 2016	<b>Underlying issues and recommendations (4)</b> <ul style="list-style-type: none"> <li>• Traincrew demand (4.1)</li> <li>• Traincrew supply (4.2)</li> </ul>
(b) What circumstances led to any inadequacies in part 1a	<b>Underlying issues and recommendations (4)</b> <ul style="list-style-type: none"> <li>• People and processes (4.3)</li> <li>• Governance (4.4)</li> </ul>
(c) When deficits in train crew availability were known about and what action was taken ahead of the commissioning of the Redcliffe Peninsula line to address these issues	<b>Timeline of events (2)</b> <b>Underlying issues and recommendations (4)</b> <ul style="list-style-type: none"> <li>• People and processes (4.3)</li> </ul>
(d) The nature and suitability of actions taken by Queensland Rail once the train crewing issues manifested under the new timetable	<b>Recovery actions (3)</b>
<b>2. Implementation of the five point plan to restore timetabled services and public confidence in Queensland Rail timetabling:</b>	
(a) Progress with the recruitment and training of the additional 200 drivers (100 approved in Nov. 2015, and 100 announced on 24 Oct. 2016) and 200 additional guards (100 approved in Nov. 2015, and 100 announced on 24 Oct. 2016)	<b>Recovery actions (3)</b>
(b) Future demand and supply requirements for train crew, including for the crewing of New Generation Rollingstock	<b>Recovery actions (3)</b>
(c) Ensuring the suitability of current and proposed Queensland Rail recruitment practices to address the issues in 2b	<b>Recovery actions (3)</b>
(d) The development and delivery of the interim timetable	<b>Recovery actions (3)</b>
(e) The suitability of arrangements and timeframes to transition from the interim timetable to the full timetable	<b>Recovery actions (3)</b>

## Appendix 3 Detailed recommendations

Queensland Rail should:

1. Develop a comprehensive five-year rolling monthly forecast of demand and supply for train crew. This forecast should be linked to the five-year corporate plan, maintained continuously and, at a minimum, subject to full annual reviews. A similar process should also be implemented for other critical operations staff, such as train controllers

The forecast should:

- (a) Incorporate all drivers of demand, including those relating to timetable changes, major capital projects, special events and other operational changes. Long-term demand should be based on service metrics such as kilometres travelled
  - (b) Account for drivers of operational efficiency and any expected changes, such as proposed crewing rules
  - (c) Quantify demand in terms of total train crew staffing requirements including robust estimates of leave, other duties, roster inefficiency and training
  - (d) Ensure estimates of supply incorporate realistic levels of attrition, recruitment and training, considering best estimates of training durations, school sizes and expected graduation rates. This should be provided in terms of total full-time equivalent requirements
  - (e) Incorporate sensitivity analyses to identify the impact of individual demand drivers
  - (f) Provide as outputs any shortfall in full-time equivalents, which can be used to inform resourcing efforts
2. Ensure that comprehensive operating plans are prepared for all major capital projects and significant operational changes, and that these are included in corresponding business cases. These operating plans should include train crew requirements and be approved by the Chief Executive Officer, updated at key milestones and incorporated into the rolling monthly forecast of demand and supply for train crew
  3. Extend the Executive General Manager Projects role to include planning and coordinating Queensland Rail's role in all major capital projects and significant operational changes, including the introduction of new timetables. The responsible Executive General Manager should cover projects irrespective of the responsible delivery entity, ensuring absolute focus on their successful delivery, integration and operation
  4. Prepare a comprehensive operational readiness assessment for timetable changes. This process should include consideration of all related projects and structured, evidence-based reviews of total staff, rollingstock and infrastructure capacity. The Chief Executive Officer should be accountable for formally approving operational readiness for each timetable change
  5. Assess the sustainability of service levels under the current timetable, introduced on 23 January 2017, to enable, at a minimum, the provision of stable services and sufficient training capacity to facilitate the long-term return to desired service levels
    - (a) Develop plans to address critical periods, such as the Easter holiday period in 2017, the increase in testing and training for New Generation Rollingstock from April 2017 and the Commonwealth Games in 2018
    - (b) Ensure that this and future timetables have contingency options with predetermined downgrades to services that are agreed with TransLink and able to be deployed with 24 hours notice to address any unforeseen shortfall, and communicated to customers with sufficient advance notice



6. Ensure that near-term negotiations with train crew unions focus on opportunities to improve productivity and ensure reliable passenger services by addressing rules regarding continuous working time, meal breaks, train crew sectorisation and rostering processes
7. Accelerate the implementation of the Workforce Management System, focussing first on optimisation modules that enable dynamic assessment of crewing rules and other proposed operational changes
8. Conduct a comprehensive review of, and revision to, crewing rules and processes. This should include developing a long-term industrial relations strategy, creating and maintaining a central view of all crewing rules, addressing opportunities to sustainably improve productivity and implementing a structured process for approving subsequent changes, all to be completed by December 2017
9. Implement operational sectorisation of train crew to increase productivity, make operations more robust and accelerate the training of train crew
10. Deliver and maintain a structural surplus of train crew to enable operations to be conducted without the systemic reliance on overtime, discretionary shifts, and tutors and inspectors in operational capacities
  - (a) Target providing agreed service levels without reliance on overtime, to reserve the use of overtime as an operational lever to address unforeseen demand events
  - (b) Ensure recruitment targets are based on realistic assumptions regarding attrition, training durations and graduate yields
  - (c) In the short term, promote part-time working arrangements only to employees at risk of attrition. In the longer-term, complement workforce with part-time employees to more efficiently cater for peaks and demand variability
11. Maintain a rolling eight-week train crew management plan that accounts for all sources of staff requirements and availability, including operational levers such as annual leave, designated leisure periods and compulsory rest periods
12. Ensure management exercises discretion over granting leave and scheduling leisure periods for train crew to maintain sufficient supply throughout the year
  - (a) Offer to purchase leave from train crew to provide greater short-term flexibility in its supply of train crew
13. Develop regular reporting and analysis of levels of overtime, sick leave, absenteeism, engagement and attrition to support a continued focus on the health and wellbeing of the train crew workforce. These reports should be shared with the Executive Leadership Team
14. Open recruitment processes for drivers and guards to external applicants – including applicants with no previous rail experience – to increase the diversity and pool of applicants and expedite progress towards achieving a structural surplus of train crew
15. Move from intermittent recruitment campaigns to ongoing recruitment and training of drivers and guards with intakes sufficient to meet long-term graduation rates required by the five-year rolling forecast of demand and supply
16. Introduce modern, competency-based training arrangements in line with Australian and global best practices. This should include enforcing standardised assessment criteria, setting a maximum duration for training, overhauling the training curriculum, increasing the use and quality of train simulators and creating a management structure to provide appropriate oversight of tutors and trainees. Training for drivers should target an average duration of nine months or less
17. Immediately confirm that the Senior Manager Train Service Delivery is accountable for managing supply, demand and responses to projected train crew shortfalls for at least the rolling eight-week forecast period, and assess the skill set required to perform this role

18. Clarify, systematically assign and document accountabilities for all train crew processes, including forecasting, recruitment, training, rostering, day-of-operations and people management
19. Encourage and acknowledge early and proactive internal escalation of potential issues to senior management
20. Minimise executive absences during periods of significant change, such as the introduction of a new timetable or the commissioning of an extension to the network
21. Rely primarily on subordinates rather than peers to fill roles where temporary relief is required to maintain continuity of management and support learning and development
22. Eliminate the Chief Operating Officer role and replace it with an Executive General Manager responsible for passenger rail in South East Queensland and an Executive General Manager responsible for Travel and Tourism, to increase the Chief Executive Officer's visibility and focus on the operational businesses. In redesigning the organisation structure, Queensland Rail should also:
  - (a) Minimise organisation layers in the residual organisation – targeting a maximum of five layers from the Chief Executive officer to frontline operations – to improve information flows and issue escalation
  - (b) Elevate Safety, Assurance and Environment to be a direct report to the Chief Executive Officer
  - (c) Integrate the Rail Management Centre and Citytrain into a single operational unit
  - (d) Increase the ratio of supervisors to train crew significantly to improve the relationship and information flow between management and train crew
  - (e) Ensure the Human Resources function is accountable for train crew training
  - (f) Eliminate duplication between divisions and functions
23. Implement a Lean Management System throughout Queensland Rail, including structured quantitative and visual reporting against annual operating plans and other operational metrics. The Chief Financial Officer should have accountability for monitoring and reporting on implementation
24. Overhaul Queensland Rail's risk management approach to improve the effectiveness of all three lines of defence, including ensuring line management is capable of managing day-to-day risks, consolidating corporate risk functions and relying primarily on independent providers to undertake internal audits

To ensure the adequacy of its processes, including scheduling, rostering, train crewing, recruitment and training, Queensland Rail should:

- (a) Ensure line management engages in risk management processes through training, and preparing and managing risk registers as an integrated part of their day-to-day role
- (b) Consolidate the risk team within Operational Coordination, Risk and Assurance from the Chief Operating Officer division into the corporate risk function under the Executive General Manager Governance, to ensure its independence
- (c) Strengthen the capability of the internal audit function by primarily outsourcing it to an independent provider, while retaining in-house capabilities to oversee the deployment of the audit program
- (d) Ensure coverage of the risk and audit program includes major projects being executed for Queensland Rail by other parts of government

25. Ensure in its current search for a new Chief Executive Officer that candidates demonstrate the following attributes:
- (a) Strong customer service focus
  - (b) Significant operational experience, preferably in a world-class passenger transport organisation
  - (c) Track record of delivering large transformation programs
  - (d) Proven capacity to drive cultural change
  - (e) Proven ability to operate successfully in a complex stakeholder environment
  - (f) Prepared to serve a term of at least five years

26. Undertake an assessment of the capabilities of the Executive and Senior Leadership teams, and, if inadequacies are identified, develop or recruit necessary capabilities

In seeking to develop or recruit capabilities, Queensland Rail should:

- (a) Recruit staff with experience in other rail, passenger transport or logistics organisations
- (b) Promote diversity within its management talent
- (c) Ensure robust succession planning and talent pipeline
- (d) Balance providing continuity of Queensland Rail's leadership with integrating new talent

27. Implement regular reporting on train crew demand, supply and shortfall initiatives to Queensland Rail's Executive Leadership Team, Board and the Responsible Ministers. This should occur each month for at least the duration of the recovery program

Queensland Rail should, at a minimum:

- (a) Provide reports on train crew demand, supply and shortfall initiatives to its Executive Leadership Team and Board each month and the Responsible Ministers every three months
- (b) Provide a comprehensive report to its Executive Leadership Team, Board and Responsible Ministers each year detailing comprehensive workforce plans that set out train crew demand, supply and initiatives to address shortfalls in train crew, if a shortfall exists
- (c) Ensure all communications addressing train crew demand, supply and shortfall initiatives should at a minimum:
  - (i) Use quantitative information to clearly outline the supply, demand and shortfall over time
  - (ii) Identify the actual shortfall forecast and the maximum possible shortfall of train crew for each period
  - (iii) Identify all relevant drivers of demand and supply
  - (iv) Outline initiatives to address shortfalls
  - (v) Incorporate sensitivity analyses that assess the impact of key drivers of supply and demand
- (d) Provide to the Executive Leadership Team, Board and Responsible Ministers – where there are major upcoming projects within the following 18 months – detailed and targeted reporting on a monthly basis that outlines staffing requirements for train crew and other key operational groups
- (e) Publish its recovery plan on its website each month until services are restored to the level agreed for the 4 October 2016 timetable. These publications should detail its progress implementing the five-point plan and the expected date for operationalising a full timetable

28. Overhaul communications to Government, including simplifying and streamlining matters reported, using more quantitative information, proactively reporting potential issues of substance with sufficient lead time for action
29. Implement transparent and timely reporting to TransLink and the public regarding operational issues that are affecting, or may impact, service delivery, to enable customers to plan alternative travel arrangements. This information should be available in real time at stations, online and through the call centre
30. Implement a communications plan with immediate effect to restore public confidence in the Citytrain network
31. Conduct a comprehensive cultural assessment and develop a multi-year action plan to foster a culture of excellence in customer service, transparency and proactivity

The Government should:

32. Clarify reporting practices to the Responsible Ministers, including:
  - (a) Ensuring operational and policy matters are reported to the Minister for Transport, through the Department of Transport and Main Roads
  - (b) Ensuring reporting to the Treasurer is focussed on financial matters, through Queensland Treasury
  - (c) Proactively managing adherence to these practices and incorporating any changes arising out of recommendation 36
33. Confirm that the Department of Transport and Main Roads has accountability for all major capital projects and significant timetable changes, and ensure that Queensland Rail remains accountable for operational readiness and project acceptance
  - (a) Request the Department of Transport and Main Roads to develop a protocol specifying the size and complexity of projects for which it is to be the lead delivery authority. It is anticipated that only few projects will meet these criteria
  - (b) Require the Department of Transport and Main Roads to validate Queensland Rail's operational readiness assessment
34. Mandate that program boards for major capital projects and significant timetable changes are led by the Department of Transport and Main Roads and have clear accountability for oversight, decision making and execution of program deliverables
  - (a) Require Queensland Rail's Chief Executive Officer to attend program board meetings
  - (b) Ensure that, where a major timetable change is implemented, this is delivered as the overarching program to ensure an integrated view of all impacts and interdependencies
35. Establish a Rail Review Office to monitor, independently audit and report on the implementation of Queensland Rail's response and recovery plan and the agreed recommendations of the Commission
  - (a) Release public progress reports each quarter, commencing with the announcement of agreed recommendations
36. Task the Rail Review Office with leading reviews of the governance, legislative framework and structure of passenger rail service delivery in Queensland. These reviews should consider the appropriate operating model and accountability for public transportation services in light of forthcoming major changes, such as the introduction of the New Generation Rollingstock, the Commonwealth Games, European Train Control System and Cross River Rail. As a starting point, the Rail Review Office should undertake four key reviews:



- (a) Assess, make recommendations on and oversee the implementation of a closely integrated public transport service developed based on leading models of such integrated organisations
- (b) Assess the requirement for, and composition of, a Board of Queensland Rail
- (c) Define accountabilities for Queensland Rail's long-term industrial relations strategy, ensuring alignment with its long-term business strategy
- (d) Undertake a whole-of-business review of Queensland Rail to identify any systemic organisational issues and develop actions to address these issues.

Appendix 4 Reconciliation of recommendations to terms of reference

Recommendation	Issue response					Recovery Plan			
	Adequacy of Queensland Rail scheduling, rostering, training, crewing, recruitment and training practice	Circumstances leading to inadequacies	When deficits in train crew availability were known and actions taken prior to commissioning Redcliffe Peninsula Line	Nature and suitability of actions taken by Queensland Rail once issues manifested	Progress with recruiting 200 drivers and 200 guards	Future demand and supply requirements for train crew	Suitability of current and proposed recruitment practices	Development and delivery of interim timetable	Suitability of arrangements and timeframes to return to full timetable
1. Develop a comprehensive five-year rolling monthly forecast of demand and supply for train crew. This forecast should be linked to the five-year corporate plan, maintained continuously and, at a minimum, subject to full annual reviews. A similar process should also be implemented for other critical operations staff, such as train controllers	✓	✓	✓			✓			✓
2. Ensure that comprehensive operating plans are prepared for all major capital projects and significant operational changes, and that these are included in corresponding business cases. These operating plans should include train crew requirements and be approved by the Chief Executive Officer, updated at key milestones and incorporated into the rolling monthly forecast of demand and supply for train crew		✓	✓			✓			✓

Recommendation	Issue response					Recovery Plan			
	Adequacy of Queensland Rail scheduling, rostering, training, crewing, recruitment and training practice	Circumstances leading to inadequacies	When deficits in train crew availability were known and actions taken prior to commissioning Redcliffe Peninsula Line	Nature and suitability of actions taken by Queensland Rail once issues manifested	Progress with recruiting 200 drivers and 200 guards	Future demand and supply requirements for train crew	Suitability of current and proposed recruitment practices	Development and delivery of interim timetable	Suitability of arrangements and timeframes to return to full timetable
3. Extend the Executive General Manager Projects role to include planning and coordinating Queensland Rail's role in all major capital projects and significant operational changes, including the introduction of new timetables. The responsible Executive General Manager should cover projects irrespective of the responsible delivery entity, ensuring absolute focus on their successful delivery, integration and operation		✓	✓			✓			✓
4. Prepare a comprehensive operational readiness assessment for timetable changes. This process should include consideration of all related projects and structured, evidence-based reviews of total staff, rollingstock and infrastructure capacity. The Chief Executive Officer should be accountable for formally approving operational readiness for each timetable change		✓	✓			✓			✓
5. Assess the sustainability of service levels under the current timetable, introduced on 23 January 2017, to enable, at a minimum, the provision of stable services and sufficient training capacity to facilitate the long-term return to desired service levels								✓	✓

Recommendation	Issue response					Recovery Plan			
	Adequacy of Queensland Rail scheduling, rostering, training, crewing, recruitment and training practice	Circumstances leading to inadequacies	When deficits in train crew availability were known and actions taken prior to commissioning Redcliffe Peninsula Line	Nature and suitability of actions taken by Queensland Rail once issues manifested	Progress with recruiting 200 drivers and 200 guards	Future demand and supply requirements for train crew	Suitability of current and proposed recruitment practices	Development and delivery of interim timetable	Suitability of arrangements and timeframes to return to full timetable
6. Ensure that near-term negotiations with train crew unions focus on opportunities to improve productivity and ensure reliable passenger services by addressing rules regarding continuous working time, meal breaks, train crew sectorisation and rostering processes	✓	✓							✓
7. Accelerate the implementation of the Workforce Management System, focussing first on optimisation modules that enable dynamic assessment of crewing rules and other proposed operational changes		✓	✓			✓			✓
8. Conduct a comprehensive review of, and revision to, crewing rules and processes. This should include developing a long-term industrial relations strategy, creating and maintaining a central view of all crewing rules, addressing opportunities to sustainably improve productivity and implementing a structured process for approving subsequent changes, all to be completed by December 2017	✓	✓	✓						✓
9. Implement operational sectorisation of train crew to increase productivity, make operations more robust and accelerate the training of train crew	✓	✓							✓

Recommendation	Issue response					Recovery Plan			
	Adequacy of Queensland Rail scheduling, rostering, training, crewing, recruitment and training practice	Circumstances leading to inadequacies	When deficits in train crew availability were known and actions taken prior to commissioning Redcliffe Peninsula Line	Nature and suitability of actions taken by Queensland Rail once issues manifested	Progress with recruiting 200 drivers and 200 guards	Future demand and supply requirements for train crew	Suitability of current and proposed recruitment practices	Development and delivery of interim timetable	Suitability of arrangements and timeframes to return to full timetable
10. Deliver and maintain a structural surplus of train crew to enable operations to be conducted without the systemic reliance on overtime, discretionary shifts, and tutors and inspectors in operational capacities	✓	✓			✓	✓	✓		
11. Maintain a rolling eight-week train crew management plan that accounts for all sources of staff requirements and availability, including operational levers such as annual leave, designated leisure periods and compulsory rest periods		✓	✓			✓			✓
12. Ensure management exercises discretion over granting leave and scheduling leisure periods for train crew to maintain sufficient supply throughout the year	✓	✓							✓
13. Develop regular reporting and analysis of levels of overtime, sick leave, absenteeism, engagement and attrition to support a continued focus on the health and wellbeing of the train crew workforce. These reports should be shared with the Executive Leadership Team	✓	✓	✓			✓			✓

Recommendation	Issue response					Recovery Plan			
	Adequacy of Queensland Rail scheduling, rostering, training, crewing, recruitment and training practice	Circumstances leading to inadequacies	When deficits in train crew availability were known and actions taken prior to commissioning Redcliffe Peninsula Line	Nature and suitability of actions taken by Queensland Rail once issues manifested	Progress with recruiting 200 drivers and 200 guards	Future demand and supply requirements for train crew	Suitability of current and proposed recruitment practices	Development and delivery of interim timetable	Suitability of arrangements and timeframes to return to full timetable
14. Open recruitment processes for drivers and guards to external applicants – including applicants with no previous rail experience – to increase the diversity and pool of applicants and expedite progress towards achieving a structural surplus of train crew	✓	✓			✓		✓		
15. Move from intermittent recruitment campaigns to ongoing recruitment and training of drivers and guards with intakes sufficient to meet long-term graduation rates required by the five-year rolling forecast of demand and supply	✓	✓			✓	✓	✓		
16. Introduce modern, competency-based training arrangements in line with Australian and global best practices. This should include enforcing standardised assessment criteria, setting a maximum duration for training, overhauling the training curriculum, increasing the use and quality of train simulators and creating a management structure to provide appropriate oversight of tutors and trainees. Training for drivers should target an average duration of nine months or less	✓	✓			✓				

Recommendation	Issue response					Recovery Plan			
	Adequacy of Queensland Rail scheduling, rostering, training, crewing, recruitment and training practice	Circumstances leading to inadequacies	When deficits in train crew availability were known and actions taken prior to commissioning Redcliffe Peninsula Line	Nature and suitability of actions taken by Queensland Rail once issues manifested	Progress with recruiting 200 drivers and 200 guards	Future demand and supply requirements for train crew	Suitability of current and proposed recruitment practices	Development and delivery of interim timetable	Suitability of arrangements and timeframes to return to full timetable
17. Immediately confirm that the Senior Manager Train Service Delivery is accountable for managing supply, demand and responses to projected train crew shortfalls for at least the rolling eight-week forecast period, and assess the skill set required to perform this role		✓	✓			✓		✓	✓
18. Clarify, systematically assign and document accountabilities for all train crew processes, including forecasting, recruitment, training, rostering, day-of-operations and people management	✓	✓	✓			✓		✓	✓
19. Encourage and acknowledge early and proactive internal escalation of potential issues to senior management		✓	✓						
20. Minimise executive absences during periods of significant change, such as the introduction of a new timetable or the commissioning of an extension to the network		✓	✓	✓					✓
21. Rely primarily on subordinates rather than peers to fill roles where temporary relief is required to maintain continuity of management and support learning and development		✓	✓						

Recommendation	Issue response					Recovery Plan			
	Adequacy of Queensland Rail scheduling, rostering, training, crewing, recruitment and training practice	Circumstances leading to inadequacies	When deficits in train crew availability were known and actions taken prior to commissioning Redcliffe Peninsula Line	Nature and suitability of actions taken by Queensland Rail once issues manifested	Progress with recruiting 200 drivers and 200 guards	Future demand and supply requirements for train crew	Suitability of current and proposed recruitment practices	Development and delivery of interim timetable	Suitability of arrangements and timeframes to return to full timetable
22. Eliminate the Chief Operating Officer role and replace it with an Executive General Manager responsible for passenger rail in South East Queensland and an Executive General Manager responsible for Travel and Tourism, to increase the Chief Executive Officer’s visibility and focus on the operational businesses	✓	✓	✓						
23. Implement a Lean Management System throughout Queensland Rail, including structured quantitative and visual reporting against annual operating plans and other operational metrics. The Chief Financial Officer should have accountability for monitoring and reporting on implementation		✓	✓						
24. Overhaul Queensland Rail's risk management approach to improve the effectiveness of all three lines of defence, including ensuring line management is capable of managing day-to-day risks, consolidating corporate risk functions and relying primarily on independent providers to undertake internal audits		✓	✓						



Recommendation	Issue response					Recovery Plan			
	Adequacy of Queensland Rail scheduling, rostering, training, crewing, recruitment and training practice	Circumstances leading to inadequacies	When deficits in train crew availability were known and actions taken prior to commissioning Redcliffe Peninsula Line	Nature and suitability of actions taken by Queensland Rail once issues manifested	Progress with recruiting 200 drivers and 200 guards	Future demand and supply requirements for train crew	Suitability of current and proposed recruitment practices	Development and delivery of interim timetable	Suitability of arrangements and timeframes to return to full timetable
<p>25. Ensure in its current search for a new Chief Executive Officer that candidates demonstrate the following attributes:</p> <ul style="list-style-type: none"> <li>(a) Strong customer service focus</li> <li>(b) Significant operational experience, preferably in a world-class passenger transport organisation</li> <li>(c) Track record of delivering large transformation programs</li> <li>(d) Proven capacity to drive cultural change</li> <li>(e) Proven ability to operate successfully in a complex stakeholder environment</li> <li>(f) Prepared to serve a term of at least five years</li> </ul>		✓	✓						
<p>26. Undertake an assessment of the capabilities of the Executive and Senior Leadership teams, and, if inadequacies are identified, develop or recruit necessary capabilities</p>	✓	✓	✓						
<p>27. Implement regular reporting on train crew demand, supply and shortfall initiatives to Queensland Rail's Executive Leadership Team, Board and the Responsible Ministers. This should occur each month for at least the duration of the recovery program</p>		✓	✓			✓		✓	✓

Recommendation	Issue response					Recovery Plan			
	Adequacy of Queensland Rail scheduling, rostering, training, crewing, recruitment and training practice	Circumstances leading to inadequacies	When deficits in train crew availability were known and actions taken prior to commissioning Redcliffe Peninsula Line	Nature and suitability of actions taken by Queensland Rail once issues manifested	Progress with recruiting 200 drivers and 200 guards	Future demand and supply requirements for train crew	Suitability of current and proposed recruitment practices	Development and delivery of interim timetable	Suitability of arrangements and timeframes to return to full timetable
28. Overhaul communications to Government, including simplifying and streamlining matters reported, using more quantitative information, proactively reporting potential issues of substance with sufficient lead time for action		✓	✓						
29. Implement transparent and timely reporting to TransLink and the public regarding operational issues that are affecting, or may impact, service delivery, to enable customers to plan alternative travel arrangements. This information should be available in real time at stations, online and through the call centre				✓				✓	✓
30. Implement a communications plan with immediate effect to restore public confidence in the Citytrain network				✓				✓	✓
31. Conduct a comprehensive cultural assessment and develop a multi-year action plan to foster a culture of excellence in customer service, transparency and proactivity		✓	✓						
32. Clarify reporting practices to the Responsible Ministers		✓	✓						

Recommendation	Issue response					Recovery Plan			
	Adequacy of Queensland Rail scheduling, rostering, training, crewing, recruitment and training practice	Circumstances leading to inadequacies	When deficits in train crew availability were known and actions taken prior to commissioning Redcliffe Peninsula Line	Nature and suitability of actions taken by Queensland Rail once issues manifested	Progress with recruiting 200 drivers and 200 guards	Future demand and supply requirements for train crew	Suitability of current and proposed recruitment practices	Development and delivery of interim timetable	Suitability of arrangements and timeframes to return to full timetable
33. Confirm that the Department of Transport and Main Roads has accountability for all major capital projects and significant timetable changes, and ensure that Queensland Rail remains accountable for operational readiness and project acceptance		✓				✓		✓	✓
34. Mandate that program boards for major capital projects and significant timetable changes are led by the Department of Transport and Main Roads and have clear accountability for oversight, decision making and execution of program deliverables		✓	✓						
35. Establish a Rail Review Office to monitor, independently audit and report on the implementation of Queensland Rail's response and recovery plan and the agreed recommendations of the Commission		✓							

Recommendation	Issue response					Recovery Plan			
	Adequacy of Queensland Rail scheduling, rostering, training, crewing, recruitment and training practice	Circumstances leading to inadequacies	When deficits in train crew availability were known and actions taken prior to commissioning Redcliffe Peninsula Line	Nature and suitability of actions taken by Queensland Rail once issues manifested	Progress with recruiting 200 drivers and 200 guards	Future demand and supply requirements for train crew	Suitability of current and proposed recruitment practices	Development and delivery of interim timetable	Suitability of arrangements and timeframes to return to full timetable
36. Task the Rail Review Office with leading reviews of the governance, legislative framework and structure of passenger rail service delivery in Queensland. These reviews should consider the appropriate operating model and accountability for public transportation services in light of forthcoming major changes, such as the introduction of the New Generation Rollingstock, the Commonwealth Games, European Train Control System and Cross River Rail		✓							

## Appendix 5 Abbreviations and glossary

### Abbreviations

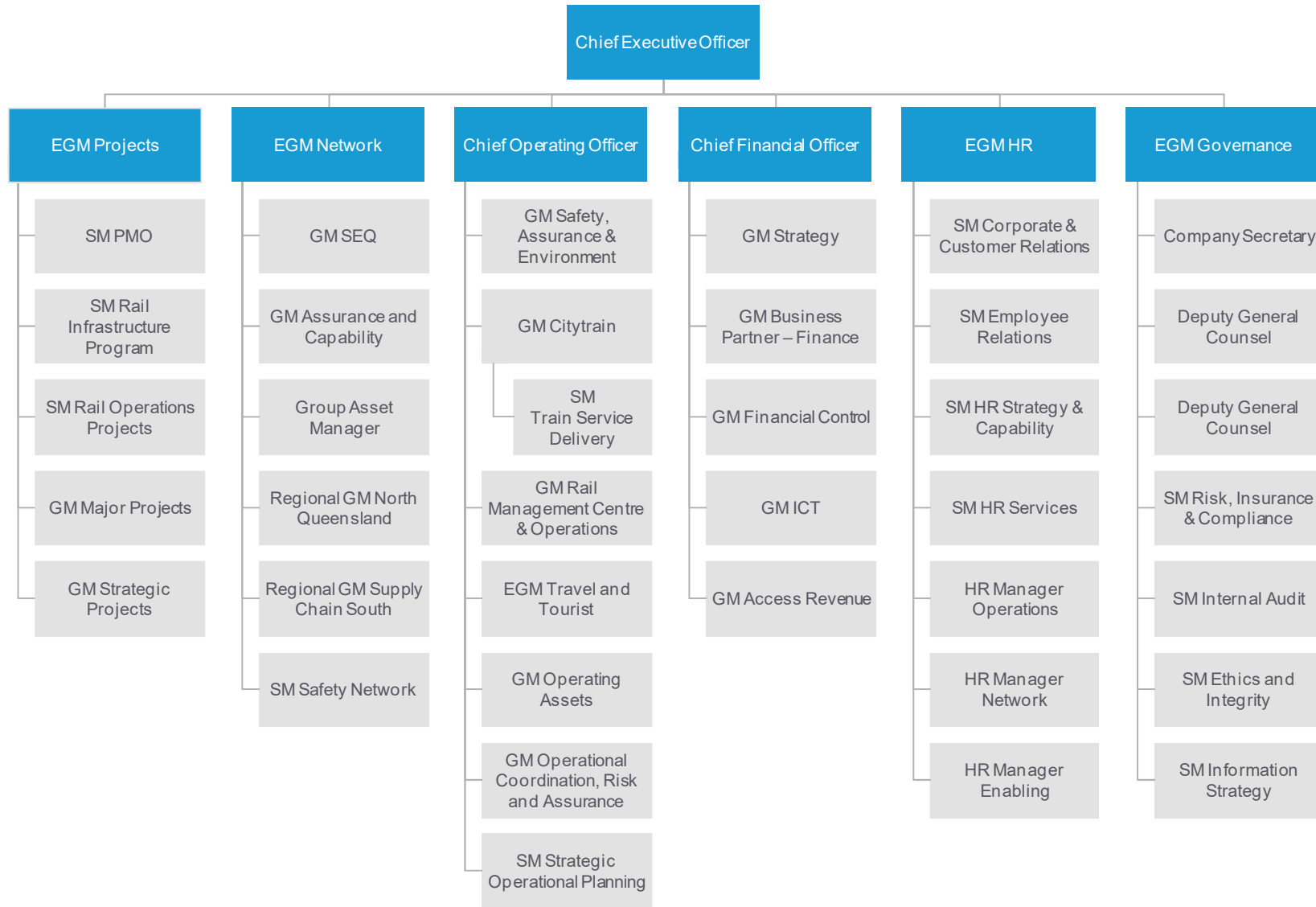
Term	Definition
AFULE	Australian Federated Union of Locomotive Employees
ASU	Australian Services Union
EGM	Executive General Manager
ELT	Executive Leadership Team
GM	General Manager
MBRL	Moreton Bay Rail Link
OTR	On-time running
the QRTA	<i>Queensland Rail Transit Authority Act 2013 (Qld)</i>
RTBU	Rail, Tram and Bus Union
SM	Senior Manager

### Glossary of key terms

Term	Definition
the Commission	The Queensland Rail Train Crewing Practices Commission of Inquiry
compulsory rest period	A mandatory rest break of at least 32 hours that is triggered where the crew member has worked 11 consecutive days or 14 consecutive shifts. In Queensland Rail, this is referred to as a "compulsory book off"
crewing rules	A collective term for rules between Queensland Rail and train crew around shift activities and rostering practices, such as the length of meal breaks and limitations on working hours
current Government	The current Government of Queensland
the Deputy Premier	The Deputy Premier, Minister for Infrastructure, Local Government and Planning and Minister for Trade and Investment
job card	Identifies the complete set of movements that a driver-guard pair will undertake over a given shift
the Minister for Transport	The Minister for Sport, and the Minister for Transport and Commonwealth Games
On-time running	The percentage of services that arrive within a designated time period. For Citytrain services, this time period is 3 minutes and 59 seconds

<b>Term</b>	<b>Definition</b>
Premier	The Premier of Queensland and Minister for the Arts
Punctuality	The percentage of scheduled services that arrive on time
Reliability	The percentage of scheduled services that run without cancellation
the Report	This report prepared by the Commission
Responsible Ministers	The Treasurer and the Minister for Transport
Sectorisation	The practice of dedicating services, train crew or rollingstock to particular lines
train crew	A person employed as a driver in charge, train operations inspector, driver trainer, tutor driver, tutor guard, locomotive driver, guard, trainee driver, trainee guard or driver's assistant
Train crew unions	The RTBU, AFULE and ASU
the Treasurer	The Treasurer, Minister for Aboriginal and Torres Strait Islander Partnerships and Minister for Sport

Appendix 6 Organisation structure of Queensland Rail (Pre-disruption)



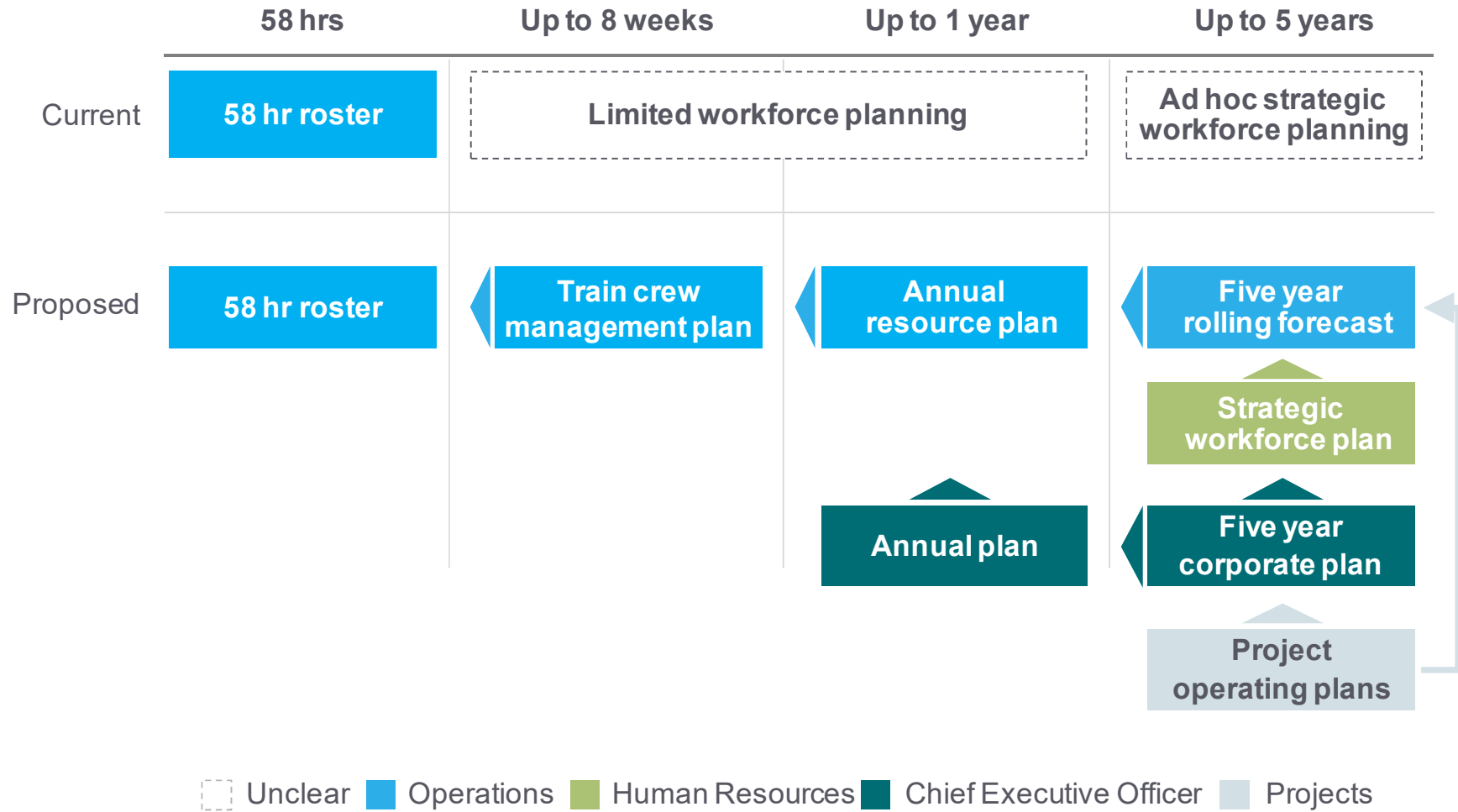
The titles of members of the Executive Leadership Team have been simplified.

Appendix 7 Implications of recommendations for Queensland Rail's organisation structure





Appendix 8 Current and proposed workforce planning processes



## Appendix 9 Transport for London case study

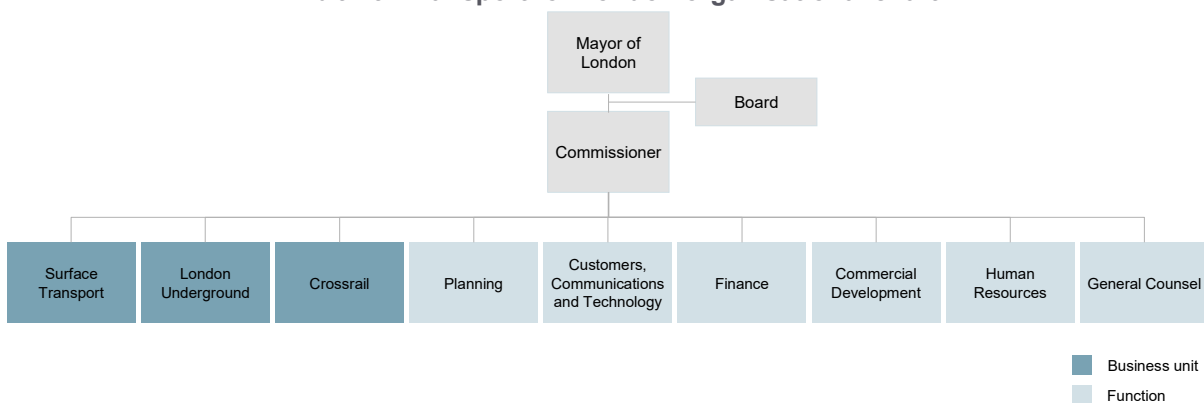
Transport for London is a local government organisation responsible for the transport system in Greater London. It is among the largest integrated transit authorities in the world, providing more than 31 million passenger journeys per day through its underground and surface transport services.<sup>68</sup>

Given its scale and performance record, public transport organisations around the world often look to Transport for London for inspiration when developing new transportation strategies, models or plans.

### An institutional structure to support customer-focussed, integrated service delivery

The Commission has identified four relevant features of Transport for London that contribute to the organisation's success, namely customer centricity, integrated services, clear governance, and an efficiently integrated organisational structure.

**Exhibit A9: Transport for London organisational chart<sup>69</sup>**



First, Transport for London is widely-recognised for putting customers at the centre of its operations.<sup>70</sup> It achieves this by elevating its customer function to the executive level, by investing heavily in technology and open data solutions, and by actively capturing and harnessing customer information through its Oyster card system for uses such as long-term network planning.<sup>71</sup>

Second, following its commitment to the customer, Transport for London offers a totally integrated and comprehensive array of public transportation services. Through its three operating businesses, Surface Transport, London Underground, and Crossrail, its services cover buses, overground, light railway, taxis, river services, roads, trams, underground and other modes.

Third, Transport for London has a clear governance model. At the top, it is run by a dedicated Commissioner (who is the Chief Executive Officer), who oversees three operating businesses and several supporting functions. The Commissioner reports to the board, which is chaired by the Mayor of London, an arrangement that has been in place since responsibility for public transport in Greater London was transferred from central to local government in 2000. While the Department for Transport provides some grant funding for operating costs and capital improvements,<sup>72</sup> Transport for London maintains primary accountability for London's transport system.

Fourth, Transport for London has an efficiently integrated organisational structure. It comprises three operating businesses, including Surface Transport, London Underground and Crossrail, and six functions, including Planning, Customers, Communication and Technology, Finance, Commercial Development, Human Resources and General Counsel. Structuring the organisation in this way has several advantages. First, the six functions together provide vital and comprehensive support to each operating business and help Transport for London act as one integrated organisation. Second, elevating Planning, in particular, to the executive level relieves operators of this significant task and enables exclusive focus on service

delivery. Finally, having each operating business report directly to the Commissioner ensures greater involvement in, and oversight of, operations.

As a final point, Transport for London has been able to realise significant independent revenue streams with almost 50 per cent of its revenue coming from fares and other tolls.<sup>73</sup> This allows the organisation to maintain more independence in its investments and operations than many other public transportation organisations.

## Appendix 10 Transport for New South Wales case study

Transport for New South Wales is the leading agency responsible for managing public transport services in New South Wales, including metro passenger rail which is delivered through its subsidiary, Sydney Trains.

In November 2016, the Commission undertook a three-day visit to Transport for New South Wales to identify any lessons relevant to the recovery of Queensland Rail. This included meetings with senior executives from across the organisation, including:

- Secretary, Transport for New South Wales
- Executive Director, Service Delivery and Performance, Transport for New South Wales
- Executive Director, Rail Services Delivery Office, Transport for New South Wales
- Chief Executive Officer, Sydney Trains
- Executive Director, Operations, Sydney Trains
- Executive Director, Engineering and Maintenance Directorate, Sydney Trains
- Executive Director, Future Network Delivery, Sydney Trains
- Chief Executive Officer, NSW Trains.

From the visit, the Commission identified a number of relevant lessons across the topics of organisational structure, timetable changes, train crew supply, crewing rules, and program governance. These lessons predominantly focus on Sydney Trains, as a metropolitan passenger rail operator most comparable to Queensland Rail.

### Brief history of the institutional structure of rail in New South Wales

Over the past two decades, the institutional structure of rail in New South Wales has undergone significant change. This was first driven by the competition policy reforms of the 1990s, which saw the divestment of commercial freight operations and the opening up of third-party access for private rail operators. It was then revisited through the Special Commission of Inquiry into two fatal accidents at Glenbrook and Waterfall in the early 2000s and then, most recently, by the customer service reform agenda of the current New South Wales Government.

Prior to 2012, passenger rail services in New South Wales were delivered by RailCorp, a state-owned corporation, which owned, operated and maintained both the network in the Sydney metropolitan area and passenger rail services across the State.

In May 2012, the then Minister for Transport announced a reform program called 'Fixing the Trains', which effectively broke RailCorp into three components:

- Sydney Trains, which serves as an operator and maintainer of passenger rail services and the network in the Sydney metropolitan area
- NSW Trains, which serves as the operator of passenger rail services beyond the Sydney metropolitan area
- RailCorp, which continues to function as an asset owner.

The delivery of long-term rail planning, service design, timetabling, major capital projects and fleet acquisition was also assumed by Transport for New South Wales.

The reform program aimed to enhance focus on customer service<sup>74</sup> and has driven marked improvements in on-time running<sup>w</sup> and customer satisfaction.<sup>x</sup>

### Structure of Sydney Trains

As a result of the reforms, the organisational structure and governance of Sydney Trains has changed substantially. There are four key components to this structure.

First, Sydney Trains has a single reporting line to the Minister of Transport via the Secretary of Transport for New South Wales. Having a single point of accountability for the successful delivery of Sydney Trains' mandate facilitates the balancing of competing organisational priorities and resolution of key issues.

Second, as a delivery agency of Transport for New South Wales, Sydney Trains relies on shared services offered by the department, such as planning, strategy, finance, human resources and customer service.

This integration of Sydney Trains with the department yields several benefits. First, it has driven closer alignment of delivery with transport policy objectives. Second, it effectively coordinates the responsibilities of Sydney Trains and the department, driving better service outcomes. While Transport for New South Wales is responsible for stakeholder management, strategy, integration, coordination and improving the customer experience, Sydney Trains' sole focus is on operating the network.

Third, Sydney Trains does not have a Board of Directors, considerably simplifying governance arrangements. It does, however, still rely on independent membership on Audit and Safety committees.

Fourth, Sydney Trains has an organisational structure of five layers with train crew at the fifth layer. Having a lean structure facilitates more effective communication and issue escalation and improves agility when responding to issues.

### Timetabling

Over the last 20 years, there have been five major timetables developed in New South Wales under several different approaches:

- The 1996 timetable was introduced to increase services but was ultimately too ambitious. On-time performance slipped to 88 per cent, diminishing customer confidence. This resulted in the replacement of the Chief Executive and reinstatement of the previous timetable
- The 2000 Sydney Olympics special timetable was developed by the then State Rail Authority and specified by the Olympic Road and Transport Authority. It was considered a major success
- The 2002 timetable was developed by the then State Rail Authority to increase services, but was shelved by the Minister at the time less than two weeks before introduction due to a shortage of drivers and an inability to use overtime
- The 2005 timetable was developed by the then State Rail Authority which reduced services, lengthened journey times and increased headways to improve reliability. This timetable was generally considered a success
- The 2013 timetable was developed by Transport for New South Wales with significant collaboration with the operators and was implemented successfully.

<sup>w</sup> Sydney Trains uses a punctuality performance measure to monitor on-time performance. The measure increases the length of peak hours, and counts services that skip scheduled stops as non-punctual. The measure is believed to provide a more transparent measure of customers' experience. Since its inception, Sydney Trains has achieved above-target (over 92 per cent) punctuality performance.

<sup>x</sup> During 2014-15, Sydney Trains recorded an 88 per cent customer satisfaction rate, up 10 percentage points from 2012.

The next major timetable change will be implemented by Transport for New South Wales in October 2017, delivering an additional 1,800 weekly services and integrating more than \$440 million of capital projects, including station, junction and signalling upgrades.

The current approach of Transport for New South Wales builds on past timetable challenges and offers four key lessons for effective timetable development and implementation.

First, timetable development is a deeply collaborative process between Transport for New South Wales, which takes a strong customer service perspective, and the operators, Sydney Trains and NSW Trains, who ensure the effective delivery of the timetable. Transport for New South Wales develops both a concept timetable, which is a high-level specification, and the first draft of the standard working timetable. The operators then provide detailed input into ensuring that the proposed timetable can be operationally delivered. Finally, the detailed master timetable, which is used as the basis for rostering, is developed by the operators.

Second, timetable introductions are considered overarching change programs, integrating subordinate projects, such as station upgrades, rollingstock, line expansions and reconfigurations and crewing. This ensures close integration and coordination of related activities and provides a clear escalation path for emerging issues.

Third, beginning with the 2017-18 approach, timetables are now introduced gradually; for instance by first increasing services by 10 per cent and then by an additional 4 per cent. This allows Sydney Trains to assess impacts of timetable changes progressively and to make any necessary adjustments before moving to full service levels.

Fourth, Sydney Trains has a comprehensive operational readiness process, which involves structured validation and review of operations, crew, fleet and network over a 12-month period. While Transport for New South Wales leads this process from a program perspective, operators are involved at all stages to ensure operational readiness and to address any emerging issues.

### Train crew supply

In order to ensure successful delivery of its timetables, Sydney Trains has a comprehensive and long-term approach to managing its train crew supply, with four key highlights.

First, a comprehensive workforce management approach forecasts train crew requirements on a rolling month-by-month basis over a seven-year horizon. This forecast takes into account a full range of factors, including new timetables, special events, projects, track work, train crew reform efficiencies, recruitment and training, leave, attrition and the age profile of the workforce. Forecasts serve as a single source of truth, are shared across the organisation and are an integrated part of operational decision-making processes.

Second, Sydney Trains targets and maintains a persistent surplus of train crew. This is achieved by using conservative estimates in forecasting demand and sizing recruitment and training efforts to ensure sufficient supply. Drawing on overtime to meet service levels is considered an exception.

Third, Sydney Trains recruits drivers and guards externally, regardless of prior rail experience, to tap into a larger pool of qualified applicants. Recruitment is coordinated end-to-end through a single point of accountability.

Fourth, driver training at Sydney Trains takes eleven months on average with strict caps on duration. Training programs employ a modern, competency-based approach, which features:

- A combination of classroom and hands-on practical training
- Extensive use of train simulators and videos for route familiarisation

- Route knowledge developed as part of a sectorised program and capped amount of training time per sector
- Final assessment upon reaching cap, with a single opportunity for reassessment.

### Crewing rules

Crewing rules are a collective term for agreements with train crew around shift activities and rostering practices. For example, there may be an agreement for two 30 minute meal breaks per shift.

Given the potentially significant impact of crewing rules on train crew productivity and demand, Sydney Trains has a deliberate, centralised strategy for managing them. There are three key components to this strategy.

First, crewing rules are formalised and incorporated into enterprise agreements.

Second, Sydney Trains models crewing rules under negotiation to understand their financial and operational impact.

Third, Sydney Trains plans and conducts enterprise agreement negotiations well before or after major timetable introductions in order to minimise the risk that bargaining behaviours impact operations.

### Program governance

To manage additions and changes to Sydney's large and growing rail network, Transport for New South Wales and Sydney Trains have developed a sophisticated approach to program governance, which centres on effective coordination, communication, and proactive participation of senior leadership.

First, major projects are delivered through Transport for New South Wales' Infrastructure and Services division, including network augmentations, fleet acquisition and upgrade, and station and precinct construction and upgrades.

Second, Sydney Trains uses a highly visual and structured reporting process, involving the use of a visual management room to provide a holistic view of the combined risks and demands the organisation is facing. Information covers such topics as train crew, operational readiness and customer impact, with reports communicated to executive leadership and ministers on a fortnightly basis.

Last, senior leadership is actively involved in the governance of major projects. This is facilitated through a variety of forums. For example:

- Sydney Trains has a dedicated executive function called Future Network Delivery, which is responsible for ensuring the successful integration of all major programs, including the new timetable
- The Rail Services Delivery Executive Group, serves as the overarching governance body responsible for coordinating and integrating all major projects and programs.
- All major projects have executive Steering Committees and Project Control Groups. The Chief Executive Officer of Sydney Trains is a member of key steering committees and, where appropriate, chairs the steering committees of large capital programs twelve months ahead of go live.

## Appendix 11 Overview of key projects

The Citytrain network is an integrated passenger rail and rail access service that covers approximately 840 kilometres of track and 152 rail stations in South East Queensland.

The network has undergone substantial changes since 2011 to cater for the expanding population of South East Queensland. These changes have included the opening of the Springfield Line and the introduction of a new timetable in 2011.

Critical recent and forthcoming major capital projects and operational changes across the network include:

- The construction and opening of the Redcliffe Peninsula Line in 2016
- The introduction of the New Generation Rollingstock from 2017 onwards
- New infrastructure and services to support the Commonwealth Games in 2018
- The European Train Control System by 2021
- The commissioning of the Cross River Rail project by 2023.

### Redcliffe Peninsula Line

The Redcliffe Peninsula Line<sup>y</sup> is a 12.6 kilometre track between Petrie and Kippa-Ring that is serviced by 6 stations. The project was jointly funded by the Australian Government, Queensland Government and Moreton Bay Regional Council.

The delivery of the Redcliffe Peninsula Line was transferred from Queensland Rail to the Department of Transport and Main Roads in 2012. The Lawnton to Petrie Rail Upgrade Project was also brought into the Redcliffe Peninsula Line program of works.

The Redcliffe Peninsula Line was delivered by an integrated project team, led by the Department of Transport and Main Roads and comprising Queensland Rail and the Moreton Bay Regional Council.

Construction on the Redcliffe Peninsula Line commenced in January 2014. The full program of works included:

- Fourteen kilometres of double track rail from Lawnton to Kippa-Ring
- A 1.5 kilometre third track between Petrie and Lawnton
- Grade separated rail connection to the Caboolture line
- Twenty-two bridge structures to provide grade separation of road and rail, including over the Bruce Highway
- Infrastructure to support passengers, including bus interchanges, bicycle storage, and 2,850 carparks
- Stabling, including train crew facilities, for 10 6-car trains near Kippa-Ring Station
- Three metre wide concrete shared path for cyclists and pedestrians along the entire length of the corridor.

The Redcliffe Peninsula Line opened for passenger services on 4 October 2016. A new timetable was introduced to fully integrate the Redcliffe Peninsula Line into the Citytrain network in 4 October 2016. The timetable was delivered as a separate project from the Redcliffe Peninsula Line, and was delivered by an

<sup>y</sup> This was known as the Moreton Bay Rail Link Project throughout its construction.



integrated project team comprising representatives from the Department of Transport and Main Roads and Queensland Rail.

The new timetable was to deliver:

- More than 650 new weekly train services
- Trains every 6 to 12 minutes in peak times
- Express services throughout the day
- 55 minute journeys between Kippa-Ring and Brisbane Central stations.

The timetable on the Caboolture and Sunshine Coast lines was recalibrated to deliver from 4 October 2016:

- Express services throughout each day in both directions
- Simplified stopping patterns
- Reduced travel times by up to 13 minutes
- Two additional inbound, off-peak services to the Sunshine Coast each weekday
- Full Nambour to Brisbane Central services, to replace Nambour to Caboolture shuttle trains.

### **New Generation Rollingstock project**

The New Generation Rollingstock project is underway and plans to deliver 75 new six-car passenger trains to meet growing demand on the network. The new trains will replace units in Queensland Rail's InterCity Express and Electric Multiple Unit fleets.

The project is led by the Department of Transport and Main Roads and is being delivered by the Qtectic consortium, led by Bombardier, under an Availability Public Private Partnership agreed in 2013.

The contract requires Qtectic to:

- Design, construct and maintain the New Generation Rollingstock trains over a 32-year period
- Design and construct the New Generation Rollingstock Maintenance Centre at Wulkuraka
- Procure three New Generation Rollingstock training simulators for train crew.

In early 2016, the construction of the Wulkuraka Maintenance Centre was completed and the first New Generation Rollingstock train arrived.

Queensland Rail is undertaking on-track testing of the New Generation Rollingstock trains and expects to commence revenue services by mid-2017. Full implementation of the New Generation Rollingstock project is expected in 2018.

### **Commonwealth Games**

To support the Commonwealth Games in 2018, the Citytrain infrastructure is being upgraded and additional services are planned to be temporarily introduced.

To support the increased patronage for the Commonwealth Games, Queensland Rail is delivering the project upgrading the Coomera to Helensvale rail track. This project includes:

- Duplicating 8.2 kilometres of track and eight rail bridges

- Installing overhead electrification and signalling systems
- Replacing 3.8 kilometres of timber barrier fencing.

The Coomera to Helensvale track duplication is being delivered by Queensland Rail and is currently on track for completion in late 2017.

Other significant rail infrastructure projects being delivered to support the Commonwealth Games include:

- Gold Coast Light Rail Stage 2: The project will include 7.3 kilometres of dual track, three new stations and four new trams. It will connect with the existing light rail network at the Gold Coast University Hospital and extend to Helensvale, where it will connect with the heavy rail network
- Helensvale interchange upgrade: The Helensvale bus and rail interchange will be upgraded to support the duplication of the heavy rail network and the integration of the light rail network. Upgrades will be made to the bus interchange to increase capacity.

Additional services will operate between Gold Coast and Brisbane to support increased demand during the Commonwealth Games.<sup>75</sup>

### European Train Control System

The European Train Control System project will implement a new signalling and communications system. It is an in-cab signalling control and automatic train protection system that protects against train-on-train collision and over-speed derailment.

The European Train Control System will support increased capacity on the network as it will allow more trains to use a particular part of the network at a given time. Furthermore, the New Generation Rollingstock trains are compatible with the European Train Control System.

The new signalling system is expected to be implemented on the inner city network between Northgate and Milton stations by 2021. The project works include:

- Automatic Train Protection, to protect against a driver's failure to follow a speed restriction or signal
- The replacement of line-side signals with displays inside the train cab
- A digital wireless communication network
- A traffic management system with automated route setting.

### Cross River Rail

The Cross River Rail project will provide a second rail crossing over the Brisbane River to reduce congestion by supporting additional services on the network.

The project includes a 10.2 kilometre rail link from Dutton Park to Bowen Hills, with 5.9 kilometres of tunnel under the Brisbane River and the central business district, and will be accessible from five inner-city locations.

The project will be delivered by the Cross River Rail Delivery Authority, with funding provided by the Commonwealth Government and the Government of Queensland.

## Endnotes

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- <sup>1</sup> Briefing 'Train crew resourcing and cancelled services – Friday 30 September 2016' addressed to the Responsible Ministers, pp. 2–3.
- <sup>2</sup> Moreton Bay Rail, Department of Transport and Main Roads <<http://www.tmr.qld.gov.au/Projects/Featured-projects/Moreton-Bay-Rail.aspx>>.
- <sup>3</sup> Moreton Bay Rail, Department of Transport and Main Roads <<http://www.tmr.qld.gov.au/Projects/Featured-projects/Moreton-Bay-Rail.aspx>>.
- <sup>4</sup> Moreton Bay Rail Link and Lawnton to Petrie Operational Readiness (July–August 2015) prepared by MBRL Operational Readiness Committee, p. 1.
- <sup>5</sup> 'Moreton Bay Rail overhead power 'goes live'', Ministerial Statement dated 13 January 2016.
- <sup>6</sup> Moreton Bay Rail Program Independent Review, Department of Transport and Main Roads June 2016, p. 2.
- <sup>7</sup> Indec, 'Train Service Delivery Review' (February 2016), p. i.
- <sup>8</sup> Letter titled "Statement of work – final iteration for MBRL job cards optimization".
- <sup>9</sup> Briefing 'MCR-16-886 Moreton Bay Rail Link SCAS and opening' (12 August 2016) addressed to the Responsible Ministers, p. 1.
- <sup>10</sup> Cancellation data provided by Queensland Rail to the Inquiry on 29 November 2016.
- <sup>11</sup> Email from Queensland Rail's Chief Executive Officer to Minister for Transport's Chief of Staff dated 2 October 2016 (08:20) titled "Fwd: Briefing docs for review – DRAFT ONLY".
- <sup>12</sup> Statement of Minister for Transport's Chief of Staff dated 20 January 2017 [2].
- <sup>13</sup> Briefing ' MCR-16-1089 Train crew resourcing and cancelled services – Friday 30 September 2016' addressed to the Responsible Ministers, pp. 2–3.
- <sup>14</sup> Briefing ' MCR-16-1089 Train crew resourcing and cancelled services – Friday 30 September 2016' addressed to the Responsible Ministers, pp. 2–3.
- <sup>15</sup> Interview with Minister of Transport (21 November 2016).
- <sup>16</sup> Letter titled 'Statement of Work – Exceptional additional iteration for MBRL job cards optimisation' (21 October, 2016) sent from GIRO to Queensland Rail.
- <sup>17</sup> Queensland Rail Group Board Meeting Agenda, 23 October 2016.
- <sup>18</sup> 'Train driver recruitment progressing at Queensland Rail', Ministerial Statement dated 28 November 2016.
- <sup>19</sup> Email from Queensland Rail to the Commission dated 18 January 2017 (16:57) titled "FW: Update re External recruitment".
- <sup>20</sup> Data provided by Queensland Rail on 5 December 2016.
- <sup>21</sup> Benchmarking data.
- <sup>22</sup> Queensland Rail Train Crewing Practices Commission of Inquiry — Queensland Rail's Response (6 January 2017), p. 27.
- <sup>23</sup> Queensland Rail's Train Service Delivery crewing model.
- <sup>24</sup> Statutory Declaration of Queensland Rail's former Chief Executive Officer dated 21 December 2016 [89].
- <sup>25</sup> Briefing 'MCR-16-1089 Train crew resourcing and cancelled services – Friday 30 September 2016', p. 2.
- <sup>26</sup> Queensland Rail Train Crewing Practices Commission of Inquiry — Queensland Rail's Response (6 January 2017).
- <sup>27</sup> Data provided by Queensland Rail to the Commission on 29 November 2016.
- <sup>28</sup> Queensland Government, 2012-13 Budget Paper 4, p. 80.
- <sup>29</sup> Senior Manager Train Service Delivery position description dated 27 November 2016.
- <sup>30</sup> Statement of Senior Manager Train Service Delivery dated 19 December 2016 [22].
- <sup>31</sup> Interview with Train Service Delivery Roster Allocation Manager on 21 November 2016.
- <sup>32</sup> Indec, 'Train Service Delivery Review' (February 2016), p. i.
- <sup>33</sup> Letter from GIRO dated 17 March 2016.
- <sup>34</sup> Statement of Queensland Rail's Chief Operating Officer dated 5 January 2017 [17].

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- <sup>35</sup> Email from Senior Manager Train Service Delivery to Queensland Rail's Senior Internal Auditor dated 13 May 2016 (14:58) titled "RE: MBRL"
- <sup>36</sup> Statement of Queensland Rail's Chief Operating Officer dated 5 January 2017 [8].
- <sup>37</sup> Statement of General Manager Citytrain dated 9 January 2017 [6(g)].
- <sup>38</sup> Statement of Queensland Rail's Chief Operating Officer dated 5 January 2017 [8]; interview with Acting General Manager Rail Management Centre and Operations (currently General Manager Citytrain) on 22 November 2016.
- <sup>39</sup> Statement of General Manager Citytrain dated 9 January 2017 [8].
- <sup>40</sup> Interview with Acting General Manager Rail Management Centre and Operations (currently General Manager Citytrain) (22 November 2016).
- <sup>41</sup> Memorandum titled "Risk rating history of insufficient train crew" dated 1 December 2016.
- <sup>42</sup> Statement of Queensland Rail's Chief Operating Officer dated 5 January 2017 [1].
- <sup>43</sup> Statement of Queensland Rail's Chief Operating Officer dated 5 January 2017 [17].
- <sup>44</sup> Minutes of the Meeting of the People and Safety Committee, held on 22 February 2016.
- <sup>45</sup> Queensland Rail presentation titled 'Talent and Succession Management Deep Dive' dated 27 June 2016.
- <sup>46</sup> Queensland Rail presentation titled 'Talent and Succession Management Deep Dive' dated 27 June 2016.
- <sup>47</sup> Statutory declaration of Queensland Rail's former Chief Executive Officer dated 21 December 2016 [89].
- <sup>48</sup> Statutory declaration of Queensland Rail's former Chief Executive Officer dated 21 December 2016 [121].
- <sup>49</sup> Statutory declaration of Queensland Rail's former Chief Executive Officer dated 21 December 2016 [28].
- <sup>50</sup> Statutory declaration of Queensland Rail's former Chief Executive Officer dated 6 January 2017 [57].
- <sup>51</sup> Memorandum titled "Risk rating history of insufficient train crew" dated 1 December 2016.
- <sup>52</sup> Email from General Manager Operational Coordination, Risk and Assurance dated 18 March 2016 (13:12) titled "MBRL Risks: Discussion with COO".
- <sup>53</sup> MBRL Operational Readiness Audit Report dated 20 May 2016, 6–7.
- <sup>54</sup> Quality Assurance Review of Internal Audit, p. 31, attached to 5 Year External Review of Audit — Report.
- <sup>55</sup> Email from Acting Chief Operating Officer to Queensland Rail's Chief Executive Officer dated 1 October 2016 (14:14) titled 'Re: Cancelled Trains Friday 30 September 2016'.
- <sup>56</sup> Statutory declaration of Queensland Rail's former Chief Executive Officer dated 21 December 2016 [87].
- <sup>57</sup> Statutory declaration of Queensland Rail's former Chief Executive Officer dated 21 December 2016 [87].
- <sup>58</sup> Email from Queensland Rail's Chief Executive Officer to Minister for Transport's Chief of Staff dated 2 October 2016 titled "Fwd: Briefing docs for review – DRAFT ONLY".
- <sup>59</sup> Note titled "Queensland Rail cancellations" attached to Statutory Declaration of Queensland Rail's former Chief Executive Officer dated 21 December 2016.
- <sup>60</sup> Queensland Rail Project Risk Management Practices — 'Deep dive assurance review' (23 November 2015) p. 16.
- <sup>61</sup> Queensland Rail report into the 25 December 2016 train cancellations, p. 16.
- <sup>62</sup> Statement of Queensland Rail's former Chief Operating Officer dated 16 January 2017 [2].
- <sup>63</sup> Queensland Rail report into the 25 December 2016 train cancellations, p. 10.
- <sup>64</sup> Operations - COO, 'Queensland Rail report to the Board' (March 2016).
- <sup>65</sup> RFI Board Report prepared by the office of the Chief Operating Officer (November 2015).
- <sup>66</sup> RFI Board Report prepared by the office of the Chief Operating Officer (January 2016).
- <sup>67</sup> Email from General Manager Operational Risk, Coordination and Assurance dated 18 March 2016 (13:12) titled "MBRL Risks: discussion with COO".
- <sup>68</sup> Transport for London Annual Report 2015–2016.
- <sup>69</sup> Transport for London, 'How we are funded' <<https://tfl.gov.uk/corporate/about-tfl/how-we-work/how-we-are-funded>>.
- <sup>70</sup> Training Journal, 'TJ Awards 2016 – winners announced' <<https://www.trainingjournal.com/articles/news/tj-awards-2016-%E2%80%93-winners-announced>>.
- <sup>71</sup> Transport for London, 'Innovations in London's transport: Big data for a better customer experience' <[http://2015.data-forum.eu/sites/default/files/1600-1640%20Weinstein\\_SEC.pdf](http://2015.data-forum.eu/sites/default/files/1600-1640%20Weinstein_SEC.pdf)>.

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<sup>72</sup> Transport for London, 'How we are funded' <<https://tfl.gov.uk/corporate/about-tfl/how-we-work/how-we-are-funded>>.

<sup>73</sup> Transport for London, 'How we are funded' <<https://tfl.gov.uk/corporate/about-tfl/how-we-work/how-we-are-funded>>.

<sup>74</sup> Transport for New South Wales, 'Rail reform underway' (1 February 2012) <<http://www.transport.nsw.gov.au/newsroom/media-releases/rail-reform-underway>>.

<sup>75</sup> Gold Coast 2018 Commonwealth Games Corporation, 'Draft Transport Operations Plan for Consultation' (November 2016), p. 39.

## List of annexes

<b>Annex</b>	<b>Description</b>	<b>Date</b>
Annex 1	Queensland Rail Operations Resource Plan 2015-2016	July 2015
Annex 2	Indec Train Service Delivery Review	February 2016
Annex 3	Correspondence between GIRO and Queensland Rail (March 2016)	17 March 2016
Annex 4	Correspondence between GIRO and Queensland Rail (October 2016)	21 October 2016
Annex 5	Ministerial briefing titled 'Traincrew resourcing and cancelled services – Friday 30 September 2016'	7 October 2016
Annex 6	Letter from Queensland Rail to the Responsible Ministers titled 'Service disruptions in October 2016'	23 October 2016
Annex 7	Extract of Queensland Rail's corporate risk system	1 December 2016
Annex 8	Report on service disruptions on 25 December 2016	3 January 2017

The names of private persons, except Government Ministers, have been redacted to preserve anonymity.