


OC220141 – Part one

11 April 2022



Tēnā koe 

I refer to your email dated 8 March 2022 requesting the following documents under the Official Information Act 1982 (the Act):

- “OC210813 Road Safety Penalties Review - Proposed recommendations for public consultation*
- OC210991 Further information on North Shore Airport's application for airport authority status*
- OC211007 Rolling Contact Fatigue system issues review- Phase One final report*
- OC210982 Effective Transport Financial Penalties - Update*
- OC220019 Funding reallocation for "Redevelopment of Strategic Roads in the Far North - Ruapekapeka Road"*
- OC211016 Research into the use and effectiveness of alcohol interlocks*
- OC211020 COVID-19 - Update on development of MIAC exit strategy”*

On 4 April 2022 we advised you that, due to consultations required, we were extending the time available to respond to your request by 20 working days.

Consultation is still taking place on two documents, but in the meantime I am providing you with the decision on your request for the other five documents. I am releasing three documents with some information withheld, and I am withholding two documents in full. The following sections of the Act have been used:

- 6(a) as release would be likely to prejudice the security or defence of New Zealand or the international relations of the New Zealand Government
- 9(2)(a) to protect the privacy of natural persons
- 9(2)(b)(ii) to protect information where the making available of the information would be likely unreasonably to prejudice the commercial position of the person who supplied or who is the subject of the information
- 9(2)(f)(iv) to maintain the constitutional conventions for the time being which protect the confidentiality of advice tendered by Ministers of the Crown and officials
- 9(2)(g)(i) to maintain the effective conduct of public affairs through the free and frank expression of opinions by or between or to Ministers of the Crown or members of an organisation or officers and employees of any public service agency or organisation in the course of their duty.

The above information is detailed in the document schedule attached as Annex 1.

With regard to the information that has been withheld under section 9 of the Act, I am satisfied that the reasons for withholding the information at this time are not outweighed by public interest considerations that would make it desirable to make the information available.

I will provide you with the decision on the remaining two documents as soon as possible, but certainly no later than 6 May 2022. Please note that the Ministry's extension notification, stating a response would be with you by 3 May, was incorrectly calculated. It included the Easter and ANZAC public holidays as working days. I apologise for this error.

You have the right to seek an investigation and review of this response by the Ombudsman, in accordance with section 28(3) of the Act. The relevant details can be found on the Ombudsman's website www.ombudsman.parliament.nz

The Ministry publishes our Official Information Act responses and the information contained in our reply to you may be published on the Ministry website. Before publishing we will remove any personal or identifiable information.

Nāku noa, nā



Hilary Penman
Manager, Ministerial Services

Annex 1 - Document Schedule

Doc#	Reference number	Title of Document	Decision on request
1	OC210813	Road Safety Penalties Review – Proposed recommendations for public consultation	Withheld in full under Section 9(2)(f)(iv)
2	OC210991	Further Information on North Shore Airport's application for airport authority status	Withheld in full under Section 9(2)(f)(iv)
3	OC211007	Rolling Contact Fatigue System Issues Review – Phase One final report	Some information is withheld under Sections 9(2)(a) and 9(2)(g)(i)
4	OC210982	Effective Transport Financial Penalties – Update	Extension of time limit under Section 15A
5	OC220019	Funding reallocation for “Redevelopment of Strategic Roads in the Far North – Ruapekapeka Road”	Extension of time limit under Section 15A
6	OC211016	Research into the use and effectiveness of alcohol interlocks	Some information withheld under Section 9(2)(a)
7	OC211020	COVID-19 – Update on development of MIAC exit strategy	Some information is withheld under Sections 6(a), 9(2)(a), 9(2)(b)(ii), 9(2)(f)(iv) and 9(2)(g)(i)

17 December 2021

OC211007

Hon Michael Wood

Minister of Transport

Cc Hon Grant Robertson

Minister of Finance

ROLLING CONTACT FATIGUE SYSTEM ISSUES REVIEW – PHASE ONE FINAL REPORT

Purpose

Update you on the findings from Phase One of the review into the system issues that contributed to the issues with rolling contact fatigue (RCF) in the Auckland rail network.

Key points

- The key finding from the Phase One report (attached at Annex 1) was that a lack of system maturity allowed RCF to worsen and remain unresolved.
- The metro rail system has grown significantly in usage, in asset value and broader strategic importance. However, unclear roles and responsibilities, ineffective checks and balances, and insufficient capability, capacity and resources did not enable the system to evolve in line with growing demands.
- The review has not taken place in a static environment, and the system has been developing naturally (with the industry revising governance arrangements, for instance) whilst the review takes place, so several of the review findings are already being addressed.
- Work is underway on Phase Two of the review to develop recommendations to improve the system, including consultation with interested parties on options for improvement. The final Phase Two report should be ready in early 2022.
- Implementation of the recommended improvements will require collaboration between all parties involved in delivering metropolitan rail services.



Harriet Shelton
Manager, Supply Chain

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Hon Michael Wood
Minister of Transport

..... / /

- Minister's office to complete:**
- Approved
 - Declined
 - Seen by Minister
 - Not seen by Minister
 - Overtaken by events

Comments

Contacts

Name	Telephone	First contact
Rory Sedgley, Principal Adviser, Supply Chain	s 9(2)(a)	✓
Harriet Shelton, Manager, Supply Chain	s 9(2)(a)	

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ROLLING CONTACT FATIGUE SYSTEM ISSUES REVIEW – PHASE ONE FINAL REPORT

Background

- 1 In June 2021 the Ministry of Transport (the Ministry) commissioned Deloitte to lead an independent review of the system level issues that may have contributed to the presence of widespread rolling contact fatigue (RCF) on the Auckland metropolitan rail network.
- 2 The purpose of the independent system review is to build on the work done to identify the technical root causes and to identify issues in the system of rail funding and governance that may have contributed to the situation.
- 3 RCF is a form of wear and tear that naturally occurs in the track due to high contact stresses. If not identified and fixed, RCF can lead to breaks in the track and potential rolling stock derailment.
- 4 A joint Auckland Transport (AT)/KiwiRail working group in 2021 identified the three technical root causes of accelerated RCF as:
 - Track: Sub-optimal track condition (aged track on historic formation), historic under investment, and insufficient rail grinding (to remove surface defects from the track)
 - Vehicle: High yaw stiffness (to improve passenger comfort) increases propensity to create RCF on imperfect track
 - Wheel rail interface: Insufficient emphasis on wheel rail profile that optimizes total cost of ownership (TCO).
- 5 Work to remediate RCF began in August 2020 with much of the urgent track work completed by Easter 2021. Continued maintenance and renewal of the network, through the Rail Network Growth Impact Management (RNGIM) project, is intended to improve the network standard in time for the opening of City Rail Link (CRL).
- 6 Through improvements to the track formation, with sleeper and rail replacement, the RNGIM project will address some of the contributing factors to RCF. KiwiRail and AT have established a Wheel-Rail Interface technical group, which will work out the best way to optimise the interaction between wheels and the track. A rail grinding programme is underway in Auckland to reduce the risk of RCF reoccurring on the replaced track and a grinding strategy will be developed as part of normal asset management.

Key findings

- 7 The key finding from the Phase One report (attached at Annex 1) was that a lack of system maturity allowed RCF to worsen and remain unresolved. The AMRN system has grown significantly in usage, in asset value and broader strategic importance. However, unclear roles and responsibilities under the Metropolitan Rail Operating Model (MROM), ineffective checks and balances, and insufficient capability, capacity and resources did not enable the system to evolve in line with growing demands. The system also lacked an enduring vision and plan under a disaggregated model.

- 8 More detail on the findings of the independent review can be found in the final report attached. The nine key system findings are set out below and some of these findings have been fully or partially addressed, but addressing others remains a work in progress.

Finding	Comment
<p>1. The Auckland Metro Rail Network (AMRN) system is fragmented and lacking a unified set of objectives and supporting planning & coordination mechanism that brings all the parties together to agree and maintain those objectives.</p>	<p>This is a work in progress. The New Zealand Rail Plan and the Rail Network Investment Programme (RNIP) set out a national strategic vision and investment forecast for the rail network. AT and KiwiRail are now working together on a Programme Business Case for the 30-year development of the AMRN, which will culminate in the creation of an Auckland Rail Plan. It will be important that these requirements, once defined through the Programme Business Case, are updated on a regular basis. KiwiRail and AT are also updating the governance arrangements for the metro network.</p>
<p>2. There is no detailed, and integrated, above and below rail asset management plan for the AMRN system, optimising the total cost of ownership based on agreed levels of service.</p>	<p>KiwiRail has undertaken a detailed assessment of its current asset management maturity and briefed you on this on 3 November 2021. KiwiRail and AT aspire to an integrated above and below rail asset management plan but acknowledge this will take several years to develop. This work will also need to align with the Programme Business Case to ensure the plan delivers on the system requirements.</p>
<p>3. Maintenance standards did not keep pace with the requirements of a modern metro system, raising questions over how these standards were governed and assured.</p>	<p>Funding has been set aside for changes to KiwiRail's codes and standards to consider AMRN specific requirements, including operation of both passenger and freight services and new technology. It will be important that delivery of these updates is monitored as part of the future system governance arrangements (see point 6). The appropriateness of the codes and standards themselves may be a future regulatory focus for Waka Kotahi.</p>
<p>4. The safety regulator was passive and lacked the maturity and resourcing to clarify its role and work pro-actively.</p>	<p>Since 2018, the rail regulator has expanded significantly and adopted a revised Rail Safety Regulatory Operating Model. It is increasingly active as a regulator, but there remains room for improvement. This improvement would be supported by clearer definition of its proposed regulatory model and maturity journey.</p>

<p>5. The Auckland Network Access Agreement (ANAA) commercial model does not create incentives for the access provider to lift the quality of network access services to that required for a modern metro system.</p>	<p>AT and KiwiRail continue to prefer the ANAA model as the regime for governing access to the network for metro passenger services but have work underway through a joint “ANAA reset group” to update arrangements. This work is at a very early stage.</p>
<p>6. There was an absence of effective industry governance arrangements to raise and resolve system concerns.</p>	<p>This is a work in progress. KiwiRail and AT are updating the governance arrangements for the metro network. The parties have acknowledged the lack of a clear escalation mechanism and the need to address this. From a regulatory perspective, Waka Kotahi is reviewing the future scope of the National Rail Industry Advisory Forum.</p>
<p>7. The funding model focused on short term affordability and did not enable catch up renewals or investment in capability and capacity to deliver ongoing maintenance and renewals for the long term.</p>	<p>The funding model reforms following the Future of Rail review provide KiwiRail with a degree of certainty of funding from the NLTF, but there remains an affordability challenge around the AT contribution and the NLTF has tight funding constraints. The completion of the asset management plan is critical to defining the required level of investment.</p>
<p>8. There were competing objectives/priorities within the AMRN system, which led to insufficient access for maintenance.</p>	<p>Ensuring sufficient access for maintenance (and work to improve the standard of the network to a level required to enable higher frequency services post-CRL) is a key driver behind the revised governance arrangements currently being prepared by AT and KiwiRail.</p>
<p>9. The capacity and tools needed to support an effective cyclical maintenance programme were insufficient given usage growth and the age and condition of assets.</p>	<p>This is acknowledged by system participants and improvements to asset management are underway. KiwiRail briefed you on its Continuous Improvement Programme on 3 November 2021. The completion of the asset management plan is critical to defining the resources required. Improved system governance and an improved ANAA will also be important to ensuring transparency over improvements in KiwiRail’s asset management practices.</p>

Collaboration throughout the review and beyond

- 9 Throughout the RCF system issues review Deloitte have undertaken extensive engagement and consultation with the participants in the metro rail system. This has created a general consensus around the key findings of the review, notwithstanding questions over the balance of emphasis, with KiwiRail placing greater weight on a historic lack of funding and AT emphasising asset management as the underlying problem.

- 10 s 9(2)(g)(i)
- 11 A high quality and constructive workshop held on 6 December 2021 with attendees from KiwiRail, AT, Transdev, Waka Kotahi (in its capacity as both the rail safety regulator, and investor) and Greater Wellington Regional Council tested different options for improving the system. Options to strengthen the system and address Phase One findings ranged from incremental to more fundamental structural reform, and early feedback has indicated more comfort with the former over the latter.
- 12 There are 6 principles guiding the development of recommendations for improvement:
- 1) Because of the degree of public benefits, governments (central and local) need to set the strategy for rail, including the funding envelope, to facilitate effective system planning and prioritisation.
 - 2) Asset management processes and a whole of life perspective (integrating above and below rail) are crucial for optimising system outcomes.
 - 3) Both funders and beneficiaries (i.e. access seekers) have a critical role in overseeing the development of the system and monitoring the realisation of public benefits.
 - 4) Both the track and train should work to a consistent customer focused performance framework to deliver passenger and freight benefits.
 - 5) Funding arrangements need to provide certainty to reflect the capital intensive and long-life nature of railways and to enable effective planning and delivery of works.
 - 6) Because below rail infrastructure has natural monopoly characteristics there are risks in relying solely on contractual arrangements and collaboration to respond to changes in desired outcomes over time.
- 13 The review team will further refine recommendations and continue to engage with participants with a view to securing a high level of support. Given the disaggregated nature of MROM, most changes to the system require the participants (KiwiRail and AT) to initiate and deliver changes for themselves. There is very limited scope for Government to impose changes on the sector (other than through legislative reform).
- 14 KiwiRail and AT acknowledge that the current model for administering the metro network is inadequate for managing the period of intense disruption to improve the standard of the network before CRL opens, and for delivering the level of service that will be expected when CRL opens. Senior leaders from KiwiRail and AT have recently been working to refresh the governance arrangements for the Auckland metro network with the intention of delivering a unified customer-centric approach.

- 15 The Ministry considers that given the significant Crown investment being directed at the Auckland metro network, the governance arrangements would be strengthened by participation from Waka Kotahi (as an investor) and or the Ministry.

Next steps

- 16 Ministry officials and Waka Kotahi will continue to work collaboratively with KiwiRail and AT as the metro rail governance arrangements evolve.
- 17 Deloitte are working on Phase Two of the review and will finalise their recommendations for system improvements in a report to you in early 2022. Whilst we expect the report to propose changes to optimise the current system, we also anticipate further work will be required to review whether MROM remains the most appropriate model for the future.

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ANNEX 1

Rolling Contact Fatigue system issues review: Phase One final report

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Auckland Metro Rail System Issues: Phase 1

Ministry of Transport

Final Report

DECEMBER 2021

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Important message

Important message to any person who has access to this document:

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Executive summary



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Auckland Metro Rail System Issues: Independent Review

The Auckland metro rail network (AMRN) is a critical asset for both passenger and freight traffic. The identification of severe rolling contact fatigue (RCF) on the AMRN in 2019 and 2020 caused significant disruption. The Ministry of Transport has engaged Deloitte to identify and articulate whether any system level issues may have contributed to the RCF issues experienced on the AMRN, and to make recommendations on future changes to the system.

Introduction

This review comprises two phases. Phase 1 focused on issues identification and Phase 2, which is well advanced at the time of writing, is focused on recommendations to strengthen the AMRN System. The purpose of the review is not to identify any wrongdoing or compliance issues from the parties involved.

This Phase 1 Report identifies the 'system level' issues that may have contributed to the RCF issues experienced on the AMRN. By system, we mean the organisations that work together to safely and efficiently deliver services on the AMRN. These organisations include KiwiRail (KR), Auckland Transport (AT), Transdev Auckland, Construcciones y Auxiliar de Ferrocarriles (CAF), Waka Kotahi (both its investment and safety regulation functions (WKI and WKS respectively)), the Crown (acting through the Ministry of Transport and the Treasury).

System level issues include those associated with system governance, incentives, funding, and capacity and capability.

Our approach to Phase 1 of the review has been to draw together themes and supporting evidence from interviews and workshops with system participants and key documents related to the system and its participants. We have also incorporated feedback and information provided to us in response to the draft Phase 1 report. A summary of substantive stakeholder feedback can be found on page 12.

Relationship to the Root Cause Review

The focus of this Review is not on the technical root causes of RCF, which have been explored through a separate working group. However, these technical root causes form important context for the review.

Since the fatal Hatfield crash in the UK in 2000 the risk of "managing" RCF rather than removing it has been well understood by network users and operators.

The Root Cause Review found that accelerated RCF in Auckland was due to a widespread set of localised causes which stem from a track asset that was not "fit for purpose" prior to the commencement of a more frequent, more demanding modern electric multiple unit (EMU) passenger operation on track condition and maintenance.

The Root Cause Review noted the closest single root cause was the failure to implement the recommendations of the 2014 Network Rail Consulting report during 2014-17. It found that there was under investment in the track infrastructure and a lack of rail grinding ahead of severe RCF being discovered. The new EMUs were also designed with high vehicle stiffness for passenger comfort. This may increase a vehicle's propensity to cause RCF on non-perfect track. Modelling for the Review found that the EMU wheel profile has a higher propensity to cause RCF when compared to the standard KR wheel profile, noting neither profile is likely to be optimal. The need to optimise the wheel rail interface (WRI) is acknowledged between the parties.

Timeline of events

The establishment of the ANAA Working Group in 2018 to prepare for the next Triennium coincided with newly available funding and, together with increased activity by the regulator, marked a turning point.

BEFORE

The investment environment for rail was constrained, and the Crown was not formally approached to fund additional AMRN renewals

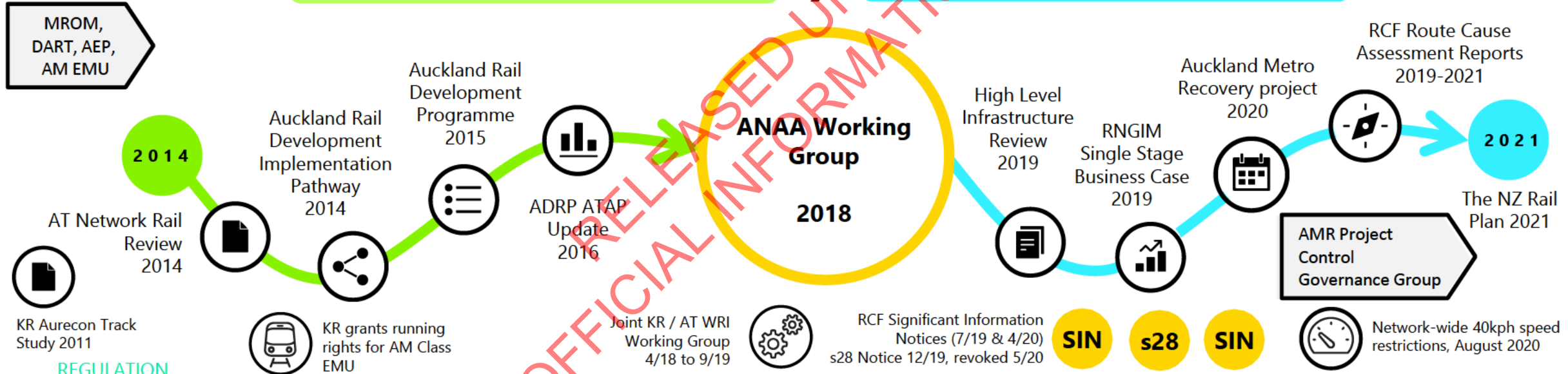
AFTER

The ANAA Working Group was established and resulted in a successful funding request under the Transitional Rail Activity Class

Government Policy Statement
2015-2017

Government Policy Statement
2018-2020

ANAA Working Group
2018



REGULATION

Independent Review of NZTA Rail Safety Team 2013

Review of NRSS Governance 2016

Review and prioritisation of rail safety risks 2017

Rail safety funding business case and regulator maturity model 2018-2019

Special Safety Assessment Report AMRN Sept 2019

National Rail Industry Advisory Forum 2019-2020

Network-wide 40kph speed restrictions, August 2020

Key events

The AMRN system, and wider New Zealand rail system, has undergone significant changes over the past two decades. The key events relevant to the AMRN are outlined on slides 20-25 and summarised below.

Pre 2014

- The Crown became increasingly involved in the rail system with the acquisition of the AMRN in 2002, and the formation of KR in 2008. This was accompanied by significant Crown investment to expand AMRN capacity for metro services, including electrification for the introduction of the AM EMU vehicles in 2014. However, 'in place' track and formation infrastructure did not receive significant investment.
- The Crown adopted the MROM model in 2009. Under this model, AT was tasked with planning and commissioning metro passenger services, and KR responsible for freight services and network infrastructure. AT and KR entered an 85-year access agreement.
- In 2010, the KiwiRail Turnaround Plan was implemented, which focused on ensuring KR financial sustainability and growing its freight business.
- Concerns with the performance of WKS, the rail safety regulator, were identified in 2013.

2014 - 2018

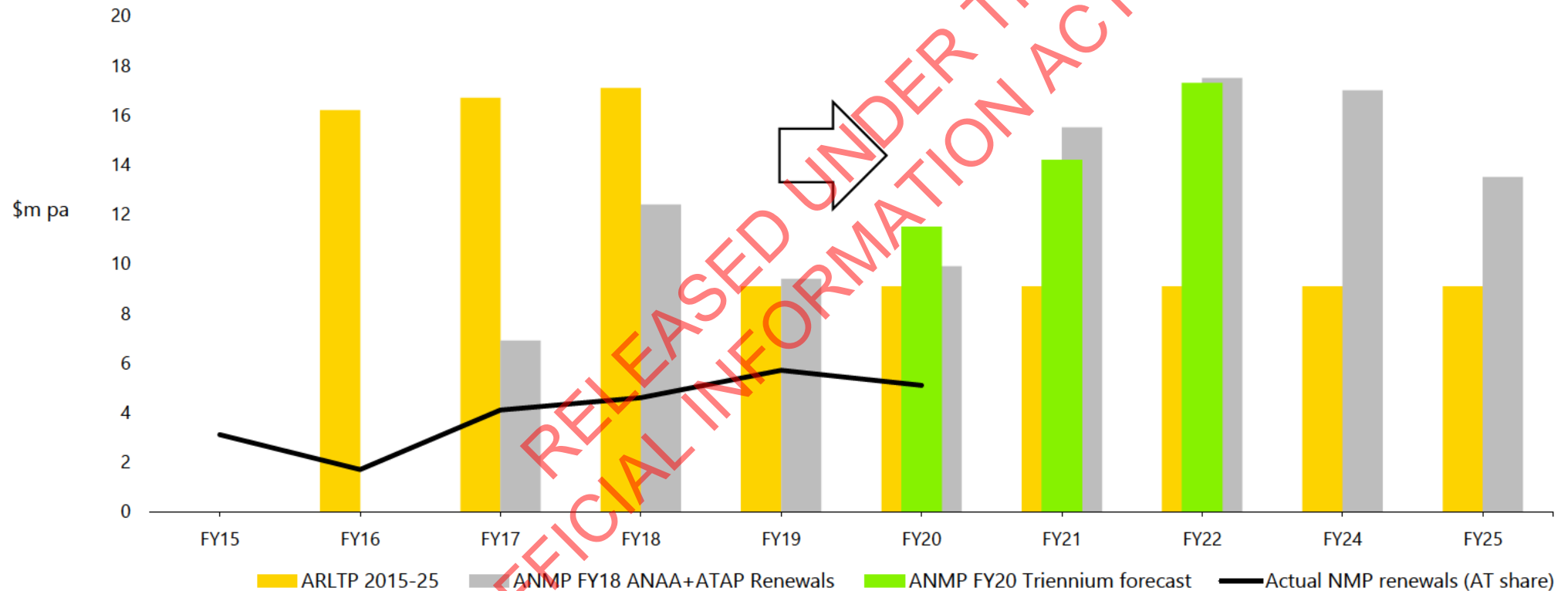
- Between 2014 and 2018, the parties increased their understanding of the infrastructure deficit facing the AMRN, with Network Rail Consulting undertaking an independent review into the AMRN. This review identified that the network required a ~\$100m programme of catch-up renewals and new maintenance practices to ensure the AMRN was fit for purpose.
- In 2016, the Crown and Auckland Council agreed to fund City Rail Link.
- The ANAA parties formed working groups to address concerns over the WRI (2017-2019) and wider network performance issues (the ANAA working group, formed in 2018).
- At a national level, WKS began increasing the capability of its regulatory branch and developing a business case for further expanding its regulatory team.
- Changes to the GPS in 2018 introduced an increased focus on metro rail and public transport, with specific funding for metro rail upgrades.

Post 2018

- The ANAA working group commissioned an independent review of AMRN infrastructure and subsequently developed a business case (RNGIM) to fund catch up renewals and new maintenance approaches. WKI approved the full \$330m RNGIM business case in 2020.
- In 2019, WKS carried out a special safety assessment into the AMRN, which identified significant deficiencies in the management of the network, including the presence of RCF.
- RCF emerged as a critical issue for the AMRN in 2020 as new testing revealed the extent of the issue, resulting in network wide TSRs. Urgent works were undertaken to enable TSRs to be removed in 2021.
- The Future of Rail review found that managed decline of rail infrastructure and short-term funding arrangements were key problems facing the national rail system. Changes to the rail funding and planning framework were implemented in 2021, while leaving the AMRN system largely unchanged.

Planned and actual AMRN renewals

In 2014, the Network Rail Study recommended \$100 million in catch-up renewals to bring the network into a steady state position. This was reflected in the 2015 RLTP and the 2014/15 NMP, but were not funding until 2019/20. These catch-up renewals were subsequently included in the 2020 ANMP Triennium budget. Over the period 2015 to 2020, the share of actual renewals funded by Auckland Transport under the ANAA averaged \$4 million per annual.



Sources:

1. Auckland Regional Land Transport Plan (RLTP) 2015-2025 (NB: We have assumed catch up renewals spending after FY18 would be spread equally over six years)
2. Auckland Network Management Plans FY15-FY20

Key findings

Our core finding is that a lack of system maturity allowed RCF to worsen and remain unresolved. The AMRN system has grown significantly in usage, in asset value and broader strategic importance. However, unclear roles and responsibilities under MROM, ineffective checks and balances, and insufficient capability, capacity and resource did not enable the system to evolve in line with growing demands. There was a lack of an enduring vision and plan required under a disaggregated model.

Characteristics of a well functioning system	Key system findings with respect to RCF
<p>Unified objectives</p>	<p>A unified set of system objectives for planning and delivering the desired levels of service</p> <ol style="list-style-type: none"> 1. The AMRN system is fragmented and lacking a unified set of objectives and supporting planning & coordination mechanism that brings all the parties together to agree and maintain those objectives. 2. There is no detailed, and integrated, above and below rail asset management plan for the AMRN system, optimising the total cost of ownership based on agreed levels of service.
<p>Checks and balances</p>	<p>Appropriate checks and balances to ensure system participants are effectively carrying out their functions</p> <ol style="list-style-type: none"> 3. Maintenance standards did not keep pace with the requirements of a modern metro system, raising questions over how these standards were governed and assured. 4. The safety regulator was passive and lacked the maturity and resourcing to clarify its role and work pro-actively. 5. The ANAA commercial model does not create incentives for the access provider to lift the quality of network access services to that required for a modern metro system. 6. There was an absence of effective industry governance arrangements to raise and resolve system concerns.
<p>Enabling environment</p>	<p>An enabling environment that allows participants to achieve the desired service levels</p> <ol style="list-style-type: none"> 7. The funding model focused on short term affordability and did not enable catch up renewals or investment in capability and capacity to deliver ongoing maintenance and renewals for the long term. 8. There were competing objectives/priorities within the AMRN system, which led to insufficient access for maintenance. 9. The capacity and tools needed to support an effective cyclical maintenance programme were insufficient given usage growth and the age and condition of assets.

Primary system issues

While a range of system issues have been identified, we have classified a subset as 'primary system issues' due their proximity to the RCF root cause. The majority of these can be classified as contributors to a lack planning and coordination in the AMRN system in relation to RCF.

AMRN governance and asset management planning and practices

The AMRN system was unable to develop a detailed asset management plan, including a plan that integrates a whole of life view of both above rail and below rail assets. The governance of the AMRN may have contributed to the inability to improve the underlying asset condition and asset management practices. The system is fragmented and there is no joined up view on the AMRN network objectives and required levels of service.

Independent engineering assessments in 2014 and 2019, and the RCF root cause working group in 2021, document a need to improve asset management and network access practices to ensure the AMRN could be renewed and maintained for EMU service. Despite the significant uplift in system use in the past decade, the AMRN system was also unable to implement necessary changes in maintenance practices, such as adoption of new equipment or required levels of access, until the RCF issue became widespread.

KR is currently working on developing a new asset management plan for its national network. While we understand KR and AT are collaborating on a programme business case for the development of the AMRN over the next 30 years. The Ministry of Transport also understands that KR and AT are collaborating on the development of a dedicated AMRN asset management plan. The RNGIM programme also provides funding for improvements in asset management practices. We do not have information on the extent to which any improvements have been implemented.

Anticipating and addressing impacts from system growth

The introduction of the EMUs coincided with increased system usage but there was no adjustment to the funding model and maintenance approach to account for whole of life impacts of these factors on the network.

In 2017, once the EMUs had been operating on the network for three years, we understand AT and KR entered discussions on managing wheel rail interface (WRI) issues. However, they were unable to reach agreement on a way forward. A key recommendation resulting from the RCF root cause working group in 2021 is for the parties to further engage on WRI optimisation and total cost of ownership.

Standards are a key part of the maintenance and safety management system. Maintenance standards for below rail infrastructure are governed by KR internally. In relation to maintenance standards, while these were reviewed in 2015, it does not appear these evolved in line with the growing demands on the AMRN. WSP's review in 2019 identified a need to change standards to ensure they were aligned with modern metro passenger requirements. The RNGIM programme incorporates a review of standards, but we do not have information on the status of that review.

Primary system issues

Not all of the system issues identified related to coordination and planning. Several issues relate to whether or not there were the right checks and balances on the AMRN system participants to address the root causes of RCF. Other issues are examples of constraints on the AMRN system participants.

Ineffective checks and balances

KR's codes and standards, as they relate to maintenance, also appear to be connected to the RCF root causes. Codes and standards related to track inspections and maintenance were the sole responsibility of KR. In 2014, Network Rail Consulting identified a need to modernise standards. Questions were raised during the 2019 Special Safety Assessment in relation to adherence to these standards, and the process by which these standards are changed. We have limited information on the extent to which KR has evolved its controls over these codes and standards, but understand this is an ongoing focus for WKS.

While WKS intervened in 2019, it appears the safety regulator was not close to the AMRN, including network condition and maintenance practices such as codes and standards, prior to then. The regulator itself was under-funded and acknowledged the need to be more active in its regulatory oversight of the system.

The governance of the AMRN is also likely to have contributed to an inability to resolve the RCF root causes. Waka Kotahi's 2019 SSA observed a lack of understanding of each party's needs, constraints and inability to compromise under ANAA. Outside of the ANAA we are not aware of a standing forum that existed during this time and involved both WKI and the Crown. We acknowledge AMRN participants have subsequently worked together to secure funding for AMRN renewals and to invest in improved asset management practices, but future governance arrangements are unclear.

Constraints and inhibitors

The AMRN system funding model was a key constraint. It appears there was no consensus on the need for catch up renewals, nor was there a funding avenue available at the time to enable catch up renewals of this scale to progress. While AT and KR prepared a development pathway for the AMRN, it appears important components of this plan, such as required catch up renewals, did not secure funding until RCF became a significant issue. Identified as necessary by NR in 2014 to ensure the network was fit for purpose, the cost of these renewals was estimated at ~\$100m.

Ongoing maintenance and renewals were funded through the ANAA, which is a long term access agreement between AT and KR. We understand that the annual commercial negotiation process to set the ANAA budget often meant discussions were focussed on budget constraints, as opposed to what was required for the network. There was no transparency of these issues outside of the ANAA parties. This led to systematic underfunding of the network maintenance and renewal.

Affordability is likely to be an ongoing issue for the AMRN. AT and KR are currently working to determine the long term investment requirement for the AMRN through a programme business case, which is expected to identify the future operating and renewals budgets.

Summary of substantive stakeholder feedback

KiwiRail

KR stated that while this report's overarching conclusion was 'probably not an unreasonable starting point', they were concerned that the issues on slide 41 were presented as soundbites and questioned whether they met the threshold for system level issues, and whether they were still relevant or enduring issues to be resolved.

KR's feedback emphasised funding as a key system issue, noting that while there were many contributing factors to the RCF situation, the most significant was the lack of funding to enable an appropriate asset management planning and investment programme. Further, KR did not see the ANAA as an issue, as there was little point in changing performance targets without additional funding.

KR cited the Matangi procurement as an example of new rolling stock being introduced on a network in a similar condition to the AMRN, but not resulting in RCF. They noted a different approach to WRI as well as a series of investments to ensure the Wellington network was ready to accommodate the new rolling stock. KR also noted there was a much larger annual renewals programme agreed with GWRC for the Wellington network than compared with the programme agreed with AT for the AMRN.

KR's view is that the report would benefit from further context. In particular, prior to the Future of Rail review, KR was significantly underfunded and the rail system was in managed decline, reflecting the government's appetite for rail investment at that time.

AT

AT noted that the report was well informed and balanced, but sought greater emphasis on forward focus areas. AT sees the underlying reason for the existing situation is a lack of asset management planning, and a lack of maintenance and renewals in line with increased access and use by various parties. In their view, addressing how to uplift system capability and capacity to achieve improvements in asset management planning and forward maintenance and renewal delivery is key.

AT suggested that report would be enhanced by clarifying where accountabilities lie, and identifying if accountabilities are not clearly defined, rather than necessarily attributing failures of individual participants to the system as a whole.

AT were concerned that the report over-emphasises the role of the EMUs and WRI as causes of the RCF situation. AT stated that the RCF Working Group and supporting experts were conclusive that track, formation and associated asset management issues were contributing factors, but that studies were inconclusive in regard to vehicle and WRI as root causes. AT also noted the EMU specification was tendered by KR prior to the process being transferred to AT, with the units accepted by KR under the same formal process as the Matangi units in Wellington. AT also noted the potential role of growth in rail freight as an RCF contributor.

AT noted that they and KR have been working together successfully in recent years to secure additional investment.

OTHER

TDAK: Positive feedback on the report, noting it was comprehensive and reflected different views in a balanced way. Amongst other points of feedback, TDAK's view was that report did not sufficiently highlight the apparent lack of understanding of the state of the network by the asset maintainer. Further, TDAK saw the ANAA as more of a contributing factor rather than the primary driver of issues. They noted that proper inspection and maintenance regimes covered by KR's safety case are more directly connected to RCF.

WKI+WKS: Joint WK feedback was supportive of the report and its framework for capturing issues.

CAF: CAF's feedback primarily related to the technical Root Cause Report, which informed this report. CAF noted that it does not agree that EMU stiffness or the wheel profile were root causes of severe RCF on the AMRN. CAF also stated they were not aware of KR having concerns in 2014 over the potential below rail maintenance impact of the EMUs and that original EMU profile was agreed by all stakeholders during the design stage.

GWRC: Positive feedback on the report and emphasised need for strong asset management disciplines, and for asset management and codes and standards to be inclusive of metro passenger requirements.

Introduction



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Auckland Metro Rail System Issues: Independent Review

The Auckland metro rail network (AMRN) is a critical asset for both passenger and freight traffic. The identification of severe rolling contact fatigue (RCF) on the AMRN in 2019 and 2020 caused significant disruption. The Ministry of Transport has engaged Deloitte to identify and articulate whether any system level issues may have contributed to the RCF issues experienced on the AMRN, and to make recommendations on future changes to the system.

This report focuses on identifying the system level issues that may have contributed to the RCF issues experienced on the AMRN. These issues include those associated with system governance, incentives, funding, and system maturity (including capacity and capability).

The focus of the Review is not on the technical root causes of RCF, which have been explored through a separate working group. However, these technical root causes form important context for the review.

Further, the purpose of the review is not to identify any wrongdoing or compliance issues from the parties involved.

Our approach to Phase 1 of the review has been to draw together themes and supporting evidence from interviews and workshops with system participants and key documents related to the system and its participants.

We consulted with AMRN system participants on the draft of this report and requested further information to resolve areas of uncertainty. This report incorporates additional information supplied by participants, noting that some areas of uncertainty remain where the requested information was not supplied to us.

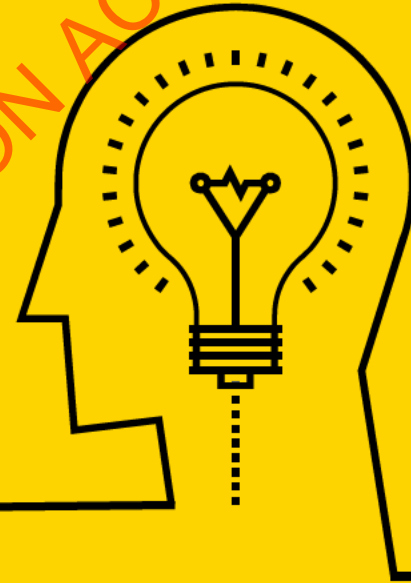
The nature of a systems level review is necessarily qualitative. There are areas of consensus and divergence amongst industry participants. Our role has been to distil industry perspectives and supporting evidence into key themes and findings. We draw on evidence from interviews, an industry workshop, and a review of a wide ranging set of documents we have been provided.

System participants we have interviewed include KiwiRail, Auckland Transport (AT), Greater Wellington Regional Council, Ministry of Transport, Transdev Auckland, Construcciones y Auxiliar de Ferrocarriles (CAF), Waka Kotahi (WKS and WKI – the WK Safer Rail and the Rail Investment teams respectively), and the Rail and Maritime Transport Union.

We are grateful for the time system participants have invested in this review to date, and the willingness of all participants to engage with this review.

Phase 2 will focus on developing and consulting on recommendations for change to resolve the issues identified through Phase 1. Phase 2 will involve further workshops with participants.

Context and timeline



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It plays a key role in both the city's public transport system and the national freight network.

The rail network plays a key role in the movement of freight, especially to and from the Ports of Auckland and Port of Tauranga, and as an origin point for domestic cargo. The track through Auckland carries a third of all rail freight in New Zealand. An estimated six million tonnes moves on the Auckland network each year. On a typical weekday about 40 freight trains travel through the Auckland network.

Auckland's rail network is a key strategic transport asset.

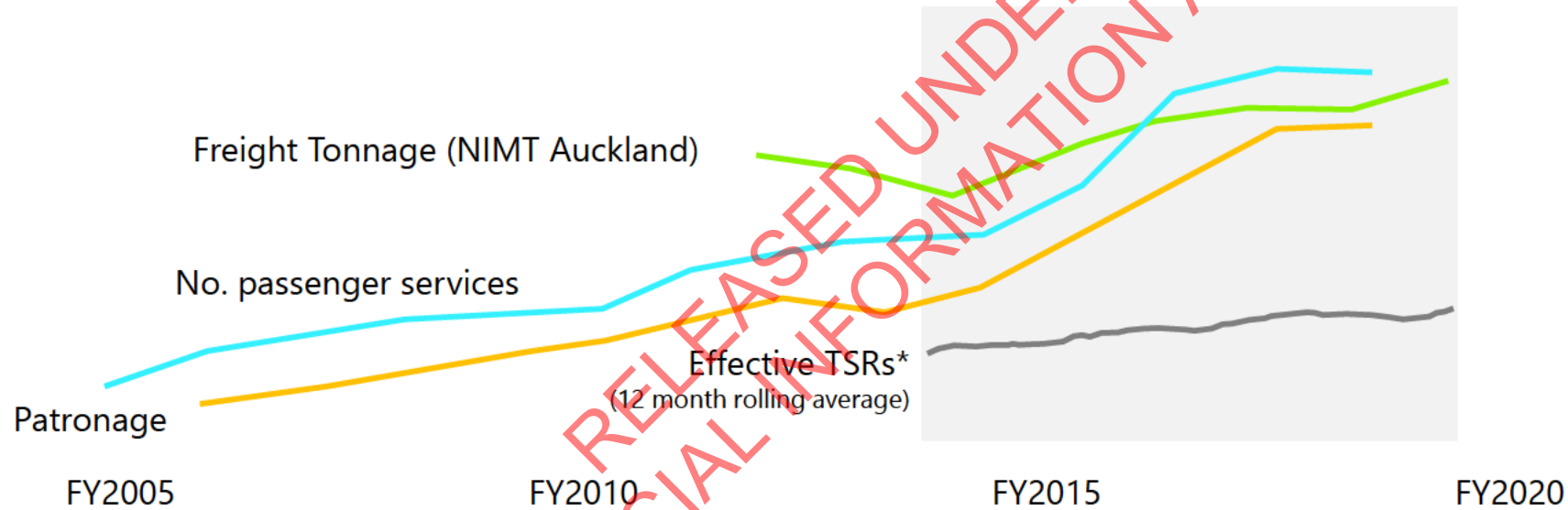
There were 22.5 million commuter trips in the year to December 2019, up from 10.2 million in FY13, and from 2.5 million in mid-2003 when Britomart opened. On a typical weekday more than 600 commuter services run on the Auckland network.

Ensuring the Auckland metropolitan rail network is resilient, reliable and CRL ready is a key priority in ATAP.

Growth on the AMRN

+13% pa over 12 years

Passenger and freight growth since DART / AEP has put considerable pressure on the AMRN performance, with the number of active temporary speed restrictions increasing steadily from late 2015 onward.

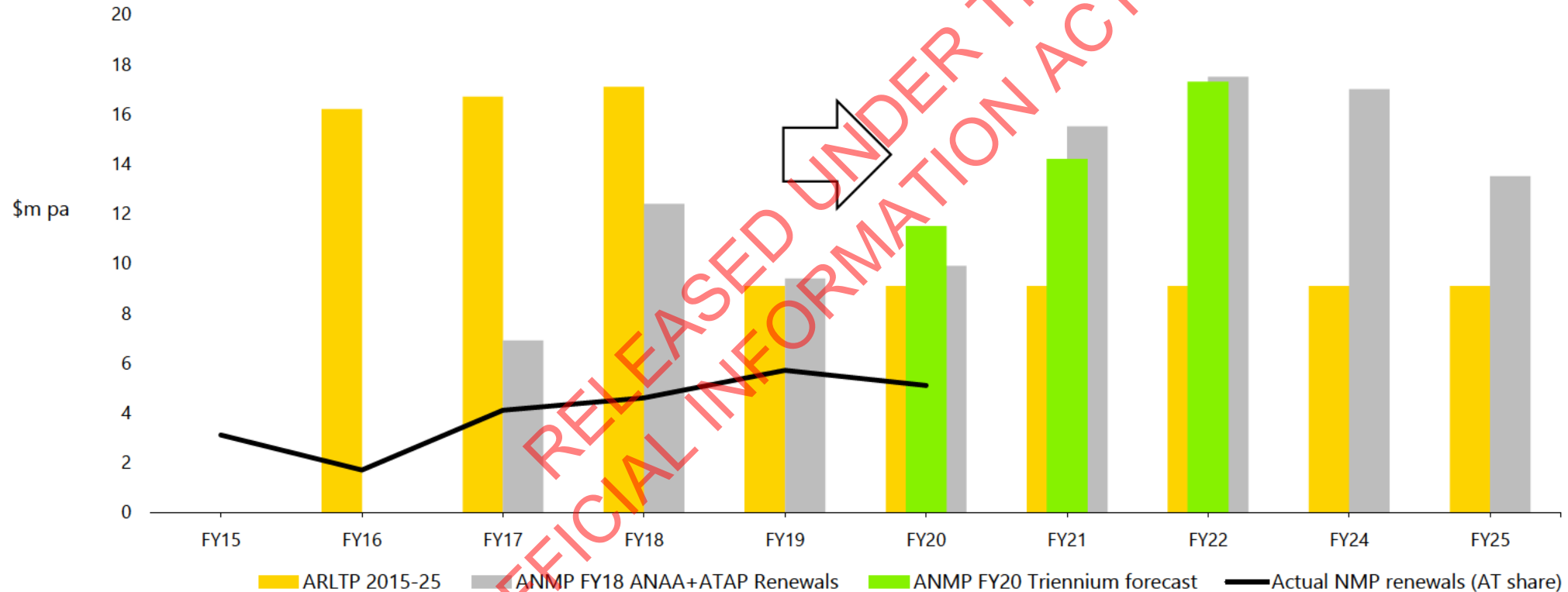


Source : Rail Network Growth Impact Management (RNIGM) SSBC, WSP | OPUS

*Temporary speed restrictions, usually put in place to mitigate the safety risks from an infrastructure fault.

Planned and actual AMRN renewals

In 2014, the Network Rail Study recommended \$100 million in catch-up renewals to bring the network into a steady state position. This was reflected in the 2015 RLTP (but not funded) and referenced in the 2018 ANMP. These catch-up renewals were subsequently included in the 2020 ANMP Triennium budget. Over the period 2015 to 2020, the share of actual renewals funded by Auckland Transport under the ANAA averaged \$4 million per annum.



Sources:

1. Auckland Regional Land Transport Plan (RLTP) 2015-2025 (NB: We have assumed catch up renewals spending after FY18 would be spread equally over six years)
2. Auckland Network Management Plans FY15-FY20

Timeline of events

The establishment of the ANAA Working Group in 2018 to prepare for the next Triennium coincided with newly available funding and, together with increased activity by the regulator, marked a turning point.

BEFORE

The investment environment for rail was constrained, and the Crown was not formally approached to fund additional AMRN renewals

AFTER

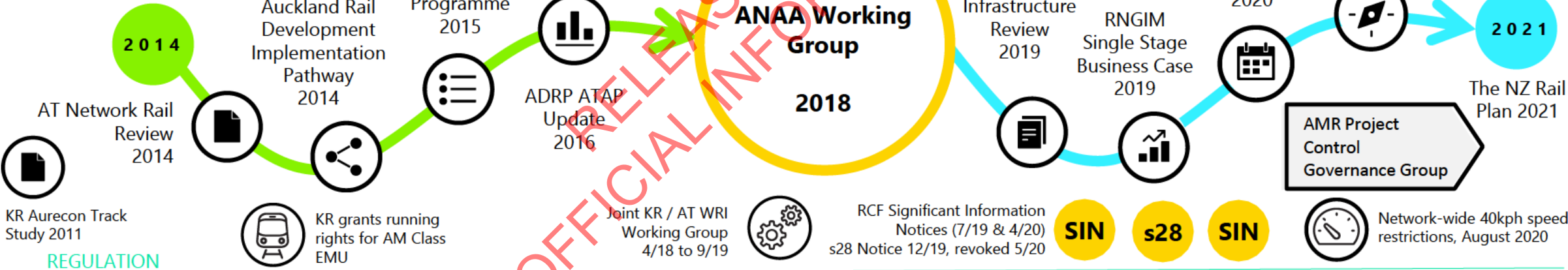
The ANAA Working Group was established and resulted in a successful funding request under the Transitional Rail Activity Class

Government Policy Statement
2015-2017

Government Policy Statement
2018-2020

ANAA Working Group
2018

MROM, DART, AEP, AM EMU



KR Aurecon Track Study 2011
REGULATION

Independent Review of NZTA Rail Safety Team 2013

Review of NRSS Governance 2016

Review and prioritisation of rail safety risks 2017

Joint KR / AT WRI Working Group 4/18 to 9/19

Rail safety funding business case and regulator maturity model 2018-2019

Special Safety Assessment Report AMRN Sept 2019

National Rail Industry Advisory Forum 2019-2020

RCF Significant Information Notices (7/19 & 4/20)
s28 Notice 12/19, revoked 5/20
SIN **s28** **SIN**
Network-wide 40kph speed restrictions, August 2020

AMR Project Control Governance Group

Timeline of events: Pre-2014








The transformation of the AMRN began with the Crown investment of \$600m for Developing Auckland's Rail Transport (DART) between 2006 and 2012, followed by the electrification of the network (AEP) and the procurement of a fleet of modern EMUs.

Event	Date	Description	Relevance
Crown reacquisition of rail assets	2002-2008	AMRN was acquired in 2002, and all below rail assets in 2004, leading to the formation of Ontrack. In 2008, the above rail assets were acquired and merged with Ontrack to form KR.	Resulted in significant changes in industry structure, with first vertical disaggregation between above and below-rail services, and then reintegration into a Crown-owned SOE.
Railways Act 2005	2005-onwards	Established the current licensing regime where rail participants assess and control their safety risks and provide assurance to WKS.	Created the current regulatory framework, with WK (initially Land Transport NZ) as regulator.
DART	2006-2012	Significant investment to expand capacity of system through double tracking, upgraded stations, reopening the Onehunga line, and a new connection to Manukau.	New infrastructure enabled more intensive use of network, however infrastructure already in place only received relatively minor improvement.
AEP	2007-2013	Electrification of most of the AMRN (Papakura to Swanson) and total replacement of the signaling system.	Enabled EMU use and more intensive use of network.
Matangi procurement	2007-2010	Greater Wellington Regional Council acquired new electric metro passenger fleet.	KR have stated that they were closer to the Matangi than the AM Class EMU procurements, with the Matangi trains not having the equivalent design features as the AM Class EMUs.
AM Class EMU procurement	2009-2014	The procurement of the new Auckland electric passenger fleet was first managed by ARTA (AT's predecessor) and transferred to KiwiRail in 2009. AT then completed the process in 2011.	Resulted in the introduction of new rolling stock that saw patronage grow significantly. EMU design features have been identified as one of the contributing factors to RCF, although the extent of this contribution is not agreed between KR and AT (and CAF).
KR Turnaround Plan and Metropolitan Rail Operating Model (MROM)	2009-onwards	The Turnaround Plan focused on improving KR's financial viability and its freight business, and MROM clarified that regional transport authorities were responsible for planning and procuring metro rail services.	Created existing AMRN industry arrangements, with split between freight and metro passenger services and adoption of ANAA for metro passenger access and associated fee.
Aurecon Track Study	2011	KiwiRail commissioned study into existing track quality and to identify routine or catch up renewals; found track to be in fair condition with isolated deterioration.	Did not identify significant infrastructure or funding deficit, but highlighted need for preventive maintenance programme and long-term investment programme and potential EMU impacts.







Timeline of events: 2014 - 2018

During this period catch up infrastructure renewals were identified by Network Rail Consulting. However, these were not funded. There was also a review that identified issues with the forum that governs system interoperability.

Event	Date	Description	Relevance
 Independent Review of NZTA Rail Safety Team	2013	WKS engaged an international consultant to review the performance of its rail regulatory function.	Highlighted 'considerable room for improvement' in terms of the regulator's performance and resourcing.
 Network Rail Consulting Report	2014	AT commissioned Network Rail Consulting to undertake an independent review of the track condition for Auckland to identify the works needed to bring the track asset condition up to the standard required to support reliable EMU operation.	Identified a need for a five-year programme of catch up track and formation renewals (~\$100 million in value), and suggested reviews of engineering standards and maintenance planning procedures.
 Running rights granted for AM Class EMU	2014	KR granted running rights to the AM Class EMUs in 2014, noting that it had concerns the modified EMU wheel profile would impact on rail maintenance requirements. Both AT and CAF have noted that they are not aware of these concerns being raised at the time, and that the wheel profile was approved by all stakeholders during the EMU design stage.	Allowed EMUs to begin operating on the AMRN.
   Auckland Rail Development Implementation Pathway and Auckland Rail Development Programme (ARP)	2014-onwards	<p>In 2014, an AT report proposed a pathway for development of the Auckland rail network through to 2031, including the catch up renewal programme suggested by Network Rail.</p> <p>In 2015, this was formulated into the ARDP, a joint AT and KiwiRail passenger and freight infrastructure plan from 2016 – 2045, setting out the network and infrastructure investments required to meet forecast demand.</p>	Identified an indicative programme of works to enable the network to meet post-City Rail Link (CRL) service levels. The 2014 report identified securing funding, resourcing and access as key implementation issues.
 Review of National Rail System Standards (NRSS)	2016	WKS commissioned review, which assessed the governance, operation and management of the NRSS.	Identified deficiencies with the NRSS, including out of date standards and ineffective governance.






Timeline of events: 2014 - 2018

Steps were also taken to increase the capacity and capability of the regulator. The ANAA parties formed new working groups to address network performance issues.

Event	Date	Description	Relevance
  Rail safety funding business case and regulator maturity model	2017-2019	In 2017, WKS commissioned a review to identify and provide evidence-based recommendations for managing priority safety risks for New Zealand rail operations. From 2017 through to 2019, WKS developed a maturity model to enhance its rail regulatory capability and performance, and to fund those enhancements.	Enabled the rail safety regulator to expand its capacity and capability.
Future of Rail Review	2017-2019	In 2017, the Future of Rail began examining the future role rail could play in New Zealand's transport system. The review found the rail network was facing a state of managed decline due to long-term underinvestment, and that short-term funding arrangements for the rail network through the annual budget process were inadequate for a long-term network asset.	Led to significant changes in how rail is planned and funded at a national level. The Future of Rail had a component which was reviewing the MROM. However, it was agreed to maintain MROM within the new system, recognising that a future review was required.
GPS 2018	2018-2021	GPS 2018 introduced an increased focus on public transport, with a dedicated transitional funding class for metro rail infrastructure improvements.	Provided funding to address AMRN catch up renewals, introduce new equipment, and review maintenance codes and standards.
ANAA Working Group	2018	A working group was formed, consisting of AT, KR, and Transdev, in light of increasing demands on network and service failures, to the review the AMRN infrastructure, maintenance and asset renewal strategy.	Brought together the ANAA parties to address declining system performance, and led to the RNGIM business case.
  Joint KR AT Wheel Rail Interface (WRI) Working Group 2018 – 2019	2018-2019	Following engagement on WRI issues in 2017, AT and KR formed a working group in 2018 to examine issues with EMU stiffness. This was in the context of granting running rights to an additional tranche of EMUs. This group last met in September 2019. The parties have agreed to re-establish a WRI group.	Illustrates that the parties were aware of WRI issues but also highlights that the WRI discussion is ongoing.





Timeline of events: After 2018

While the AMRN system participants developed a business case to secure funding for AMRN infrastructure renewals, the state of the AMRN became a focus of the regulator. RCF emerged as a prominent issue with the AMRN.

Event	Date	Description	Relevance
 High level infrastructure review	2019	Independent review by WSP reporting to the ANAA working group into the specification and condition of AMRN rail assets, maintenance standards and maintenance plan.	Reconfirmed extensive track and track bed renewals were required and provided the basis for the RNGIM business case. The review identified that urgent action was needed to monitor and assess RCF and mitigate RCF through grinding or rail replacement.
 RNGIM Single Stage Business Case	2019-2020	Business case prepared by WSP identifying a preferred set of interventions to address the findings of the high level infrastructure review.	Secured funding from the new NLTF transitional rail activity class, to undertake catch up renewals and to improve maintenance approaches, capacity and capability. While approved in 2020, a funding portion was released in 2019 for urgent renewals and new RCF testing approaches.
 Significant Information Notice T19-004	2019	KR issued a track engineering advisory notice in relation to RCF, which modified existing inspection and mitigation requirements.	Highlighted the increasing focus on RCF, although this modification of standards became a matter of concern during the SSA.
 Special Safety Assessment (SSA)	2019-2020	Following intelligence related to the AMRN asset condition, WKS initiated an SSA into the AMRN in July 2020, which identified significant concerns with the condition of the network and maintenance practices. The SSA report is dated September 2019 and remedial actions were closed out during June 2020, with ongoing monitoring in place.	The SSA made a number of significant findings, including that the levels of maintenance activities at the time were insufficient and that RCF appeared to be widespread throughout the network. The SSA also raised concerns in relation to adherence to maintenance standards, and the process for changed standards, including relation to Significant Information Notice T19-004.
 Railways Act s 28 notice	2019-2020	Statutory notice from WKS imposing conditions on the operation and use of AMRN (including no increase in train services beyond existing timetables and a requirement on KiwiRail to demonstrate an appropriate maintenance programme) due to the condition of the AMRN and inadequate management of RCF. The notice was revoked in May 2020.	Highlighted the severity of the RCF issue and wider AMRN condition.

Timeline of events: After 2018

The identification of severe RCF in 2020 required the imposition of blanket speed restrictions and urgent track repairs.

Event	Date	Description	Relevance
 National Rail Industry Advisory Forum	Late 2018-onwards	New industry grouping convened by WKS consisting of the main participants in the New Zealand rail industry alongside industry regulators, and the Ministry of Transport.	Provided for a new forum, with wider membership than the NRSS-E, to identify, discuss, resolve and implement solutions to rail industry wide matters.
 Significant Information Notice T20-004	2020	KiwiRail issued a revised track engineering advisory notice in relation to RCF, which replaced Significant Information Notice T19-004.	Updated the RCF inspection and management approach taking account of WKS's concerns raised during the SSA.
 Speed restrictions	2020	In August 2020, additional testing identified severe RCF throughout the AMRN. A network wide 40 km/hr speed restriction was applied to manage the safety risks while repairs were undertaken.	Demonstrates the impacts stemming from severe RCF on the AMRN.
 Auckland Metro Recovery project	2020-2021	Work to remediate RCF began in August 2020 with much of the urgent track work completed by Easter 2021, funded through RNGIM.	Replaced affected rail and end of sleep sleepers to enable the speed restrictions to be lifted. Ongoing work on formation and improving maintenance practices will occur under the RNGIM programme.

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Timeline of events: After 2018

The parties have now reached a consensus position on the technical causes of the RCF. The government has also made significant changes to the planning and funding framework for rail in New Zealand with the introduction of the Rail Plan and the Rail Network Investment Programme.



Event	Date	Description	Relevance
Root cause analysis	2019-2021	RCF route cause assessment Reports were prepared in 2019 and 2020 by two different consultancies. In 2021, the joint working group examining the technical causes of the accelerated RCF prepared and released a report identifying the technical root causes. These broadly relate to the (1) condition of track and maintenance practices (2) the impact from the stiffness and wheel profile of the EMU vehicles, and (3) the wheel-rail interface.	Identifies the the technical root causes of the accelerated RCF on the AMRN, and a series of recommendations to ensure RCF does not again become a critical issue on the AMRN. Stakeholder feedback on this report identified different areas of emphasis and remaining areas of disagreement amongst the stakeholders on some root cause elements.
The NZ Rail Plan and RNIP	2021	<p>The Future of Rail Review confirmed the value of rail to New Zealand and highlighted that the rail network was facing a state of managed decline due to long-term underinvestment.</p> <p>The New Zealand Rail Plan sets out the Government's long-term vision for rail investment as an integrated part of the land transport investment system, and has identified resilience and reliability are key priorities for rail. It states that the long-term vision is for the rail network to provide modern transit systems in New Zealand's largest cities, and to enable increasing volumes of freight to be moved by rail.</p> <p>To replace the transitional rail activity class, there is a new rail network activity class to support investment in KR's network maintenance and renewal programme. The Rail Network Investment Programme (RNIP), developed by KR and approved by the Minister of Transport, sets out KR's planned below rail maintenance, renewal and improvement activities.</p>	Highlights ongoing importance of the AMRN for delivering on the government's objectives for rail. There is now ongoing funding from the NLTF to deliver the RNIP, noting that existing metro access arrangements remain in place.

GPS

GPS 2018-2020 enabled greater investment in rail infrastructure to support passenger rail growth. GPS 2018 has now been replaced by GPS 2021, which includes for the first time an activity class that enables NLTF funds to be invested in the KR national rail network. GPS 2021 also integrates metro network rail investment into the PT infrastructure activity class and allows for it to be considered alongside other public transport infrastructure investment.

Government Policy Statement 2015-2017

GPS 2015 provided limited guidance on investment in metro rail. This GPS did note that investment in urban passenger rail services from the NLTF (under the public transport activity class) was supplementing Crown grants.

GPS 2015 also noted there were no current Crown appropriations to rail freight services and infrastructure within the scope of the GPS.

The 2015 Auckland RLTP noted: 'The Transport Agency is currently unable to fund rail infrastructure and KiwiRail's investment is limited to freight projects where there is a demonstrated commercial return.'

Government Policy Statement 2018-2020

GPS 2018 introduced an increased focus on public transport and rail. The amount of funding for public transport and rail was increased.

The transitional rail activity class was created, which was specifically focused on below track improvements for metro passenger services, with funding at 100% FAR.

The GPS sets out the Government's strategic direction for the land transport system over the next 10 years and is updated every three years. It provides guidance on how we invest the National Land Transport Fund (NLTF), and how we assess and prioritise activities for Regional Land Transport Plans (RLTPs) and the National Land Transport Programme (NLTP).

How the Future of Rail has changed funding?

Network funding has historically been sought on an annual basis through the Budget process. Changes to the LTMA mean that funding for the rail network can be accessed from the NLTF, with the GPS providing certainty of a baseline level of support. The ANAA and WNA arrangements remain unchanged, however.



Before

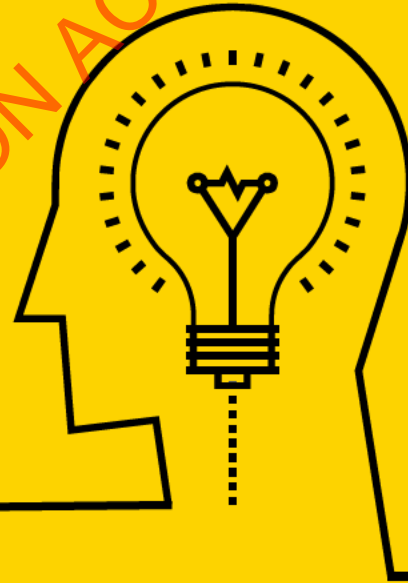
- 2010 KiwiRail Turnaround Plan and introduction of the MROM created a separation between metro and freight-related investment.
- Crown provided funding support for KR (through grants and shareholder injections) for freight network investment.
- Metro councils were expected to fund maintenance and renewals related to their services, with specific network budgets developed for the Auckland and Wellington metros, with funding split between the metro councils and KiwiRail, to fund steady state maintenance and renewals. Metro councils received support from NLTF for public transport services and infrastructure, most recently at 51% FAR.
- There was Crown investment into the metro networks through programmes such as DART and AEP. The Crown has also commissioned various upgrades (e.g. CRL, NZUP programme).



Today

- KiwiRail can now access funding from the NLTF by developing the RNIP, aligning with the Rail Plan and RLTPs. The RNIP needs to align with the GPS, is reviewed by WKI and approved by the Minister of Transport. KR now pays track user charges into the NLTF.
- The RNIP enables funding for KR to maintain, operate, renew and improve the rail freight and tourism network (including a proportionate contribution to the cost of maintaining metropolitan rail networks used by KR's rail freight and long-distance passenger services).
- The RNIP is focused on the national network, but funds KR's share of the metro network budgets and incorporates metro network improvements. Renewals and maintenance spending related to metro passenger services, or further network upgrades for metro passenger services, would still be part funded by the metro councils (supported by WKI at 51% FAR from the public transport activity class), or funded by the Crown.
- The metro access arrangements have been retained within the current system at this time, pending a further MROM review.

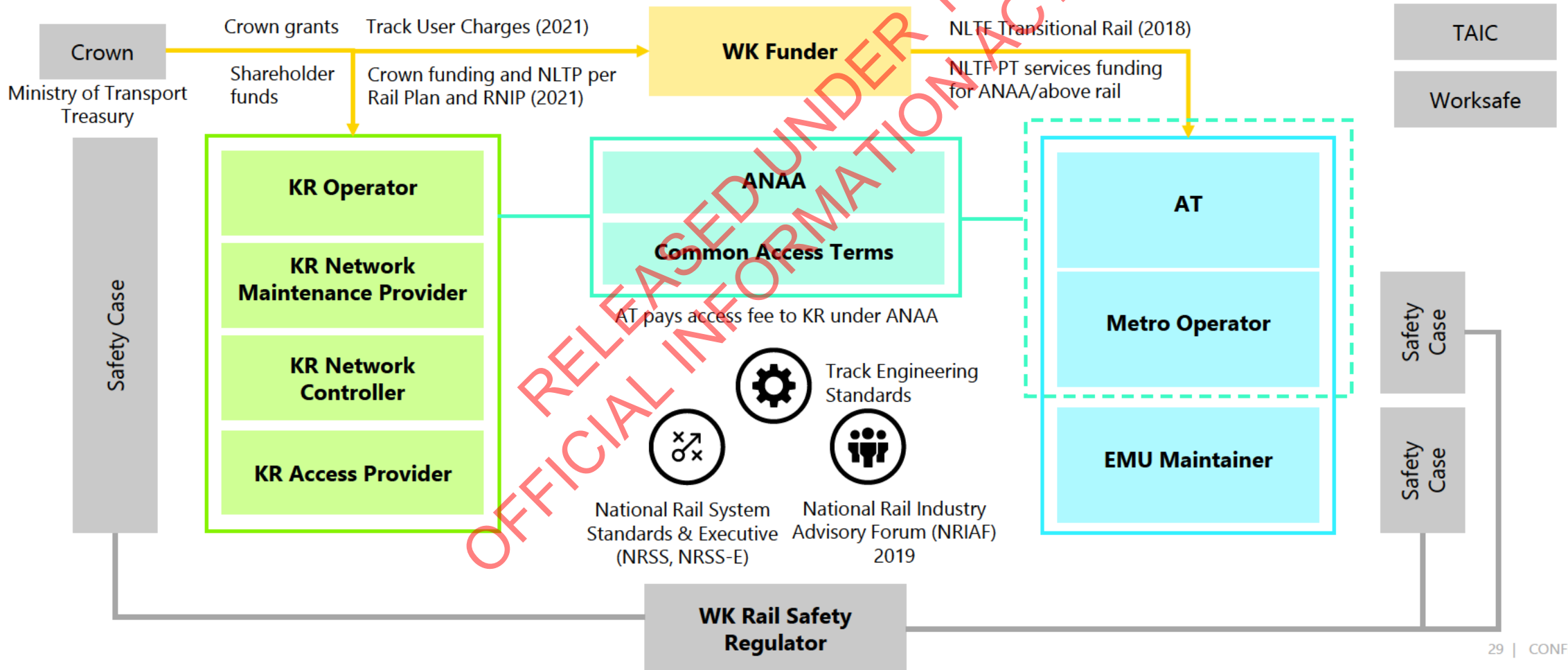
The system



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The system

The system consists of the organisations that work together to safely and efficiently deliver services on the AMRN. Under the MROM, the system is vertically disaggregated for metro passenger services with commercial access arrangements between above and below rail, supported by a safety regulation and co-funding model. Freight and long distance passenger services are vertically integrated with the below rail network. The core structure of the AMRN system has remained largely unchanged since the ANAA was adopted in 2012, noting planning and funding arrangements have recently changed.



Industry roles and responsibilities

Outline of key accountabilities and responsibilities related to the AMRN budget

		Crown	Auckland Transport	KiwiRail	Waka Kotahi	Metro Operator	EMU Maintainer
Network budget	AMRN metro passenger access fee		Pays access fee based on its share of the AMRN network budget	Invoices Auckland Transport for access	Pays share of AT fee at 51% FAR	Checks KiwiRail access fee invoices through wash up process	
	AMRN network budget	The Minister of Transport approves the RNIP, which incorporates the AMRN budget	Influences AMRN budget as pays large share, approves NMP	Develops the AMRN network budget for inclusion in the NMP. Also develops the RNIP, which incorporates the AMRN budget	Reviews the RNIP		
	AMRN KiwiRail freight and long distance passenger share of network budget			Pays TUC into NLTF	Pays KR share of network budget, which forms part of the RNIP		

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Industry roles and responsibilities

Outline of key accountabilities and responsibilities related to planning and funding

		Crown*	Auckland Transport	KiwiRail	Waka Kotahi	Metro Operator	EMU Maintainer
Planning and funding	Network renewal funding		Responsible for share of steady-state renewals funding	Responsible for seeking funding for renewals from WKI and AT	Catch up renewals currently funded by WKI	Consulted with as part of NMP development	
	Network upgrades funding	Current programme of network upgrades are largely funded by the Crown	Works with KR on strategic planning for network, half funds CRL	Develops business cases and executes programmes	WKI can fund additional metro rail upgrades via NLTF at 51% FAR		
	Network Management Plan		AT reviews and accepts the NMP	KR develops the NMP in consultation with AT and Transdev		Consulted with as part of NMP development	
	Asset management planning (below rail)		Interest in below rail asset management approach as seeks to maximise network performance for metro passenger services	Responsible for asset management planning for below track infrastructure	Provides asset management advice through RNIP		
	Asset management planning (above rail)	Funds new KR rolling stock	Plans and procures new PT rolling stock and passenger stations	Grants running rights to rolling stock, plans and procures freight rolling stock, interest in above rail asset management to extent it has implications for below rail assets	Pays share of AT capital costs		
	Long term planning	Party to ATAP, since 2021 has also set objectives through the Rail Plan and approves the RNIP	Works with KR to develop ARDP, which informs RLTP, RNIP, ATAP	Works with AT to develop ARDP, which informs RLTP, RNIP, ATAP	Party to ATAP		

*The Ministry of Transport monitors performance of the transport system and advises on system settings, with Treasury monitoring KR's commercial performance as an SOE. Both the Ministry and Treasury advise on system funding.

Industry roles and responsibilities

Outline of key accountabilities and responsibilities related to network operations

		Crown	Auckland Transport	KiwiRail	Waka Kotahi	Metro Operator	EMU Maintainer
Operations	Below rail maintenance and renewal delivery		Influences access to network for infrastructure works through timetable committee, and funding available through NMP	Responsible for planning and executing maintenance and renewal programme		Influences access to network for infrastructure works through timetable committee	
	Metro passenger operations		AT is responsible for planning and commissioning metro passenger services	Consulted as access provider, network controller and maintainer		Responsible for delivering metro passenger services.	
	Freight and long distance passenger operations			KR plans and operates freight and long distance passenger services			
	Network access		Member of the network timetable committee, has access rights granted under ANAA	KiwiRail chairs and has majority of representatives on network timetable committee, and controls access to network.		Observed on the network timetable committee	
	Station maintenance		Awards contract for maintenance and renewal works		Pays share of AT operating costs		
	EMU maintenance		Owns rolling stock and has running rights, and contracts CAF to maintain EMUs				Responsible for maintaining EMUs
	DMU maintenance		Contracts KiwiRail to maintain metro passenger DMUs		Responsible for maintaining DMUs		

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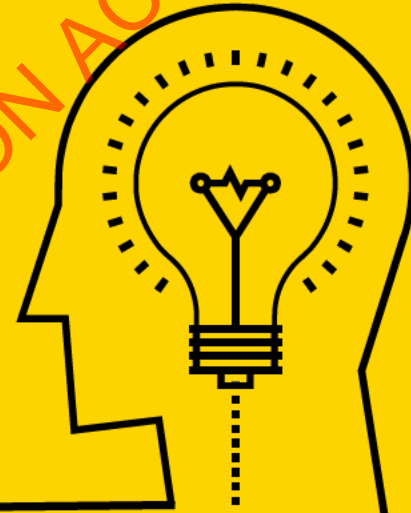
Industry roles and responsibilities

Outline of key accountabilities and responsibilities related to safety and standards

		Crown	Auckland Transport	KiwiRail	Waka Kotahi*	Metro Operator	EMU Maintainer
Safety and standards	NRS Standards & Executive			Convenes NRSS-E, develops standards for interoperability in consultation with other NRSS-E members	Observes NRSS-E	Participates in NRSS-E	Participates in NRSS-E
	National Rail Industry Advisory Forum	Observer (MoT)	Member	Member	Convenor (WKS)	Member	Member
	Track Engineering Standards			KR sets its standards and codes for maintenance and inspection	Some degree of oversight of major changes that relate to KR's safety case		
	Safety regulation	Minister has the power to set rail safety rules	Rail sector participant, but is unlicensed	Owns safety case for the network infrastructure, network control and its freight and long-distance passenger services	Grants safety licences, reviews safety cases, conducts annual audits and conducts safety enforcement activities, facilitates NRIAF, can recommend rail safety rules to the Minister	Owns safety case for metro passenger services	Owns safety case for EMU maintenance

*TAIC and Worksafe are also involved in safety oversight alongside WKS.

System issues



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Root causes of RCF

RCF root cause assessment Reports were prepared in 2019 and 2020 by two different consultancies. In 2021, the joint working group examining the technical causes of the accelerated RCF prepared and released a report identifying the technical root causes. The report notes that there was no single outlier cause, but rather a widespread set of localised causes. The closest single root cause could be stated as a missed opportunity during 2014-2017 to implement the 2014 NR recommendations.

ROOT CAUSES OF RCF



Track: Sub-optimal track condition, under-investment and insufficient rail grinding

Track related root causes include:

- Historic under-investment prior to 2014 and through to August 2020, with the report noting that 'a significant underlying cause is most likely to be aged track on historic formation'.
- Insufficient rail grinding from 2015 through to August 2020.
- Suboptimal track condition at multiple sites on the network (including aged sleepers and track, and gauge exceedances)

Auckland's climate was also identified as a partial contributor to the growth of track defects.



Vehicle: High yaw stiffness may increase propensity to create RCF on non-perfect track

Vehicle related root causes include:

- High primary yaw stiffness in the EMUs (to improve passenger comfort), which may increase a vehicle's propensity to cause RCF on non-perfect track, although modelling to demonstrate this was not included in the root cause brief.
- An EMU wheel profile, which was modified from KR's standard profile to counteract wheel flange wear from vehicle stiffness, has a greater propensity to cause RCF formation over the most common KR profile (based on modelling done as part of the root cause analysis). The Root Cause Report also notes the KR profile is unlikely to be the optimal profile.



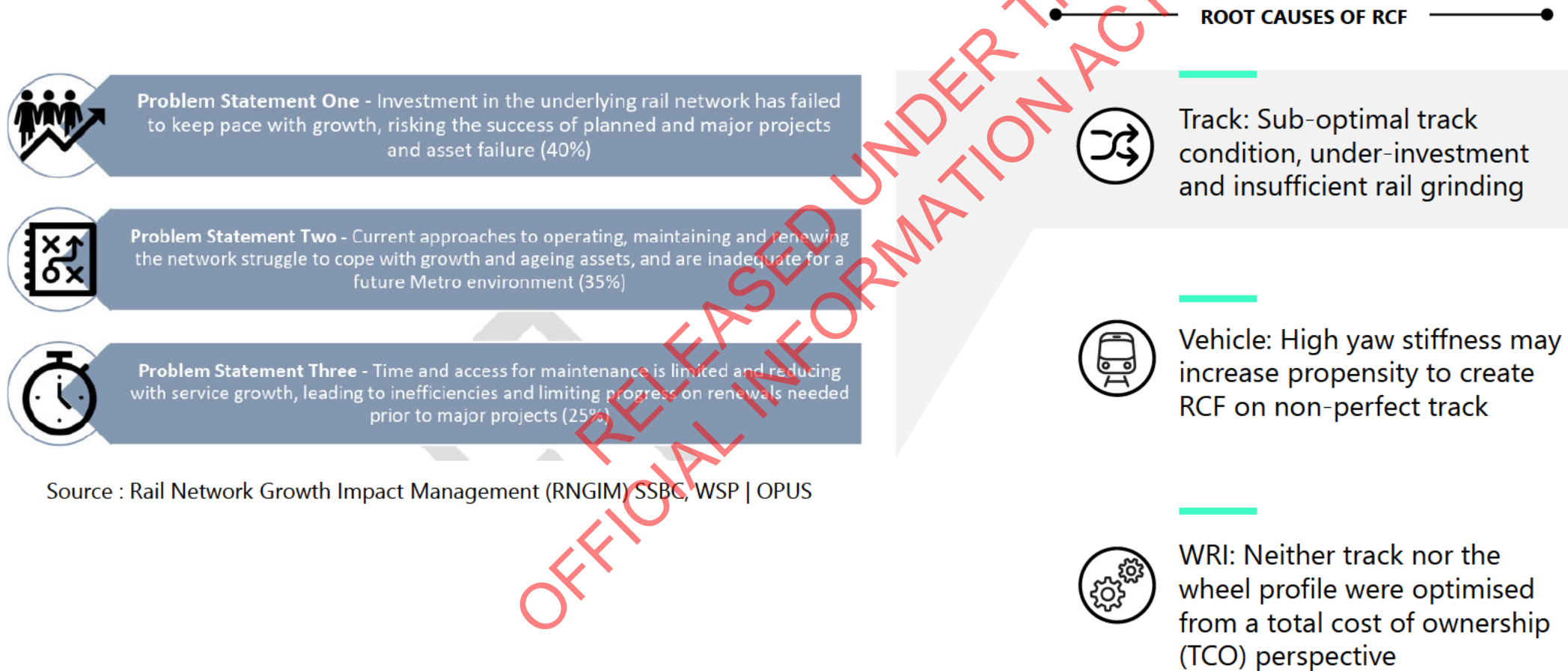
Wheel rail interface: Neither track nor the wheel profile were optimised from a total cost of ownership (TCO) perspective

WRI related root causes include:

- A lack of comprehensive grinding since 2015.
- A lack of artificial rail inclination on track structures.
- Insufficient emphasis on developing and adopting a wheel / rail profile that optimises the TCO of the holistic rail system.

Problems

In 2019, the RNGIM project team of AT, KR and Transdev identified and agreed three problem statements relating to condition and performance of AMRN. These primarily relate to the Track root cause identified by the Auckland Metro RCF Working Group. In addition to the track root cause, the Auckland Metro RCF Working Group identified aspects of the EMUs that may also have contributed to the accelerated RCF experienced on the AMRN.



Source : Rail Network Growth Impact Management (RNGIM) SSBC, WSP | OPUS

How should a system work?

To frame the system issues it is instructive to think about how the system should have operated to have avoided RCF reaching the point of criticality and safety risk that it did. We have, therefore, considered the characteristics of a well functioning system, and specifically how it manages and addresses risks such as RCF, drawing on the Learning Legacy created by the Crossrail project in UK in relation to risk and assurance ('Three Lines of Defence').

Characteristics of a well functioning system

A starting point for assessing potential system issues is to consider what makes a well functioning system:

- A unified set of system objectives for planning and delivering the desired levels of service (i.e. planning and coordination).
- Appropriate checks and balances to ensure system participants are effectively carrying out their functions (i.e. safeguards and incentives).
- An enabling environment that allows participants to achieve the desired service levels. This would include sufficient funding, capacity and capability, clear accountabilities, and mechanisms to allow the system to respond appropriately to changed needs through time (i.e. minimising constraints or inhibitors on parties delivering the system objectives).

From our document review and materials, we found evidence that the system might not have had these characteristics in relation to RCF. We have categorised these issues into the following three high level buckets to support our analysis of the AMRN system:

- Lack of unifying objectives and planning,
- Ineffective checks and balances, and
- Constraints and inhibitors to the enabling environment.

Checks and balances ('Three Lines of Defence')

- **First line provided by delivery teams' self assurance**
- **Second line provided by internal oversight functions**
- **Third line provided by independent, often external, assurance bodies**



Source : <https://learninglegacy.crossrail.co.uk/documents/risk-and-assurance/>

Key findings

Our core finding is that a lack of system maturity allowed RCF to worsen and remain unresolved. The AMRN system has grown significantly in usage, in asset value and broader strategic importance. However, unclear roles and responsibilities under MROM, ineffective checks and balances, and insufficient capability, capacity and resource did not enable the system to evolve in line with growing demands. There was a lack of an enduring vision and plan required under a disaggregated model.

Characteristics of a well functioning system	Key system findings with respect to RCF
<p>Unified objectives</p>	<p>A unified set of system objectives for planning and delivering the desired levels of service</p> <ol style="list-style-type: none"> 1. The AMRN system is fragmented and lacking a unified set of objectives and supporting planning & coordination mechanism that brings all the parties together to agree and maintain those objectives. 2. There is no detailed, and integrated, above and below rail asset management plan for the AMRN system, optimising the total cost of ownership based on agreed levels of service.
<p>Checks and balances</p>	<p>Appropriate checks and balances to ensure system participants are effectively carrying out their functions</p> <ol style="list-style-type: none"> 3. Maintenance standards did not keep pace with the requirements of a modern metro system, raising questions over how these standards were governed and assured. 4. The safety regulator was passive and lacked the maturity and resourcing to clarify its role and work pro-actively. 5. The ANAA commercial model does not create incentives for the access provider to lift the quality of network access services to that required for a modern metro system. 6. There was an absence of effective industry governance arrangements to raise and resolve system concerns.
<p>Enabling environment</p>	<p>An enabling environment that allows participants to achieve the desired service levels</p> <ol style="list-style-type: none"> 7. The funding model focused on short term affordability and did not enable catch up renewals or investment in capability and capacity to deliver ongoing maintenance and renewals for the long term. 8. There were competing objectives/priorities within the AMRN system, which led to insufficient access for maintenance. 9. The capacity and tools needed to support an effective cyclical maintenance programme were insufficient given usage growth and the age and condition of assets.

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Review terms of reference

The focus of Phase 1 has been to develop an understanding from all involved parties as to the key contributing system factors behind RCF in Auckland. Our terms of reference identify five key system issues for the review to address during this phase. These are outlined below. We use these to categorise the themes that emerged through interviews, our document review, and a workshop with system participants. Pages 40-42 of this report identify these themes and outlines our framework for analysing each of them.

<p style="font-size: 48pt; text-align: center;">1</p> <p style="text-align: center;">MROM roles and responsibilities</p> <p>Whether the roles, responsibilities and implementation of the metropolitan rail operating model may have contributed to the RCF issue</p>	<p style="font-size: 48pt; text-align: center;">2</p> <p style="text-align: center;">Funding incentives</p> <p>To what extent the model may have incentivised the right levels and types of funding for the network.</p> <p>Whether the user charge framework in the ANAA is appropriate to achieve desired network outcomes</p>	<p style="font-size: 48pt; text-align: center;">3</p> <p style="text-align: center;">ANAA incentives</p> <p>Whether, in practice, the existing network agreements place appropriate incentives on the parties involved.</p> <div style="border: 1px dashed gray; padding: 10px; margin-top: 20px; text-align: center;"> <p>Addressed under Funding #2</p> </div>	<p style="font-size: 48pt; text-align: center;">4</p> <p style="text-align: center;">Capacity and capability</p> <p>Whether the system had the right capacity and capability to ensure the network was maintained and safe</p>	<p style="font-size: 48pt; text-align: center;">5</p> <p style="text-align: center;">Other system issues</p> <p>Any other system-level factors that were key contributors to the extent of the RCF on Auckland's metro network.</p>
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Framework for attributing system issues (pre-2018)

ROOT CAUSES OF RCF

SYSTEM ISSUES CONTRIBUTING TO RCF ROOT CAUSES

Lack of unifying objectives and planning

Knowing RCF would occur, why was there no planning and agreement to adequately manage RCF to achieve the system objectives?

Ineffective checks and balances

Why did the system safeguards and incentives not work to escalate the RCF issue for resolution?

Constraints and inhibitors

What factors constrained and inhibited the system from escalating and responding to the RCF issue?

Issues identified are colour-coded to reflect the 5 groups of system issues specified in the terms of reference for the Review



First Line

Second Line

Third Line



Track: Sub-optimal track condition, under-investment and insufficient rail grinding



Vehicle: High yaw stiffness may increase propensity to create RCF on non-perfect track



Wheel rail interface: Neither track nor the wheel profile were optimised from a total cost of ownership (TCO) perspective

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Framework for attributing system issues (pre-2018)

ROOT CAUSES OF RCF

SYSTEM ISSUES CONTRIBUTING TO RCF ROOT CAUSES



Track: Sub-optimal track condition, under-investment and insufficient rail grinding



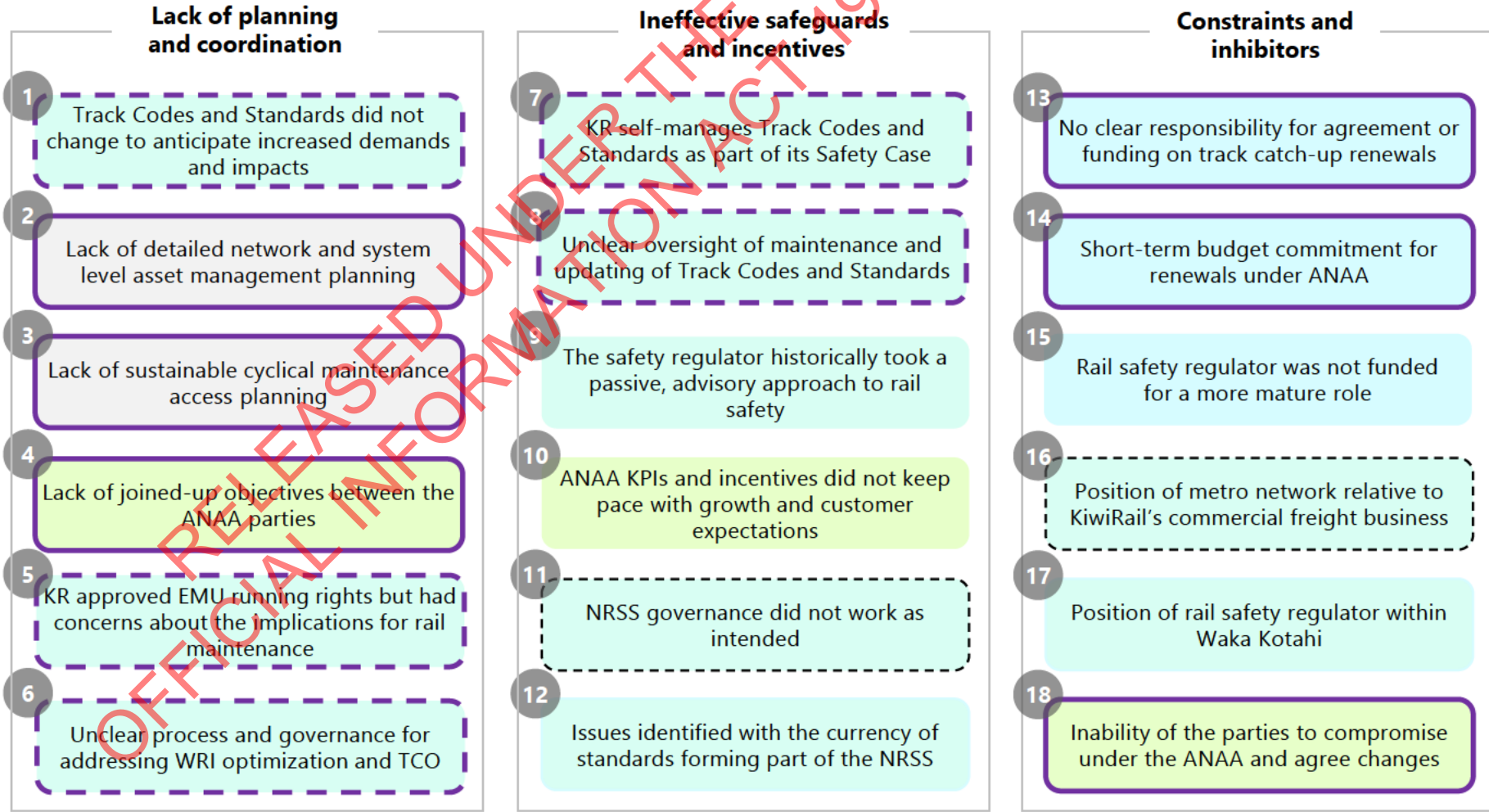
Vehicle: High yaw stiffness may increase propensity to create RCF on non-perfect track



Wheel rail interface: Neither track nor the wheel profile were optimised from a total cost of ownership (TCO) perspective

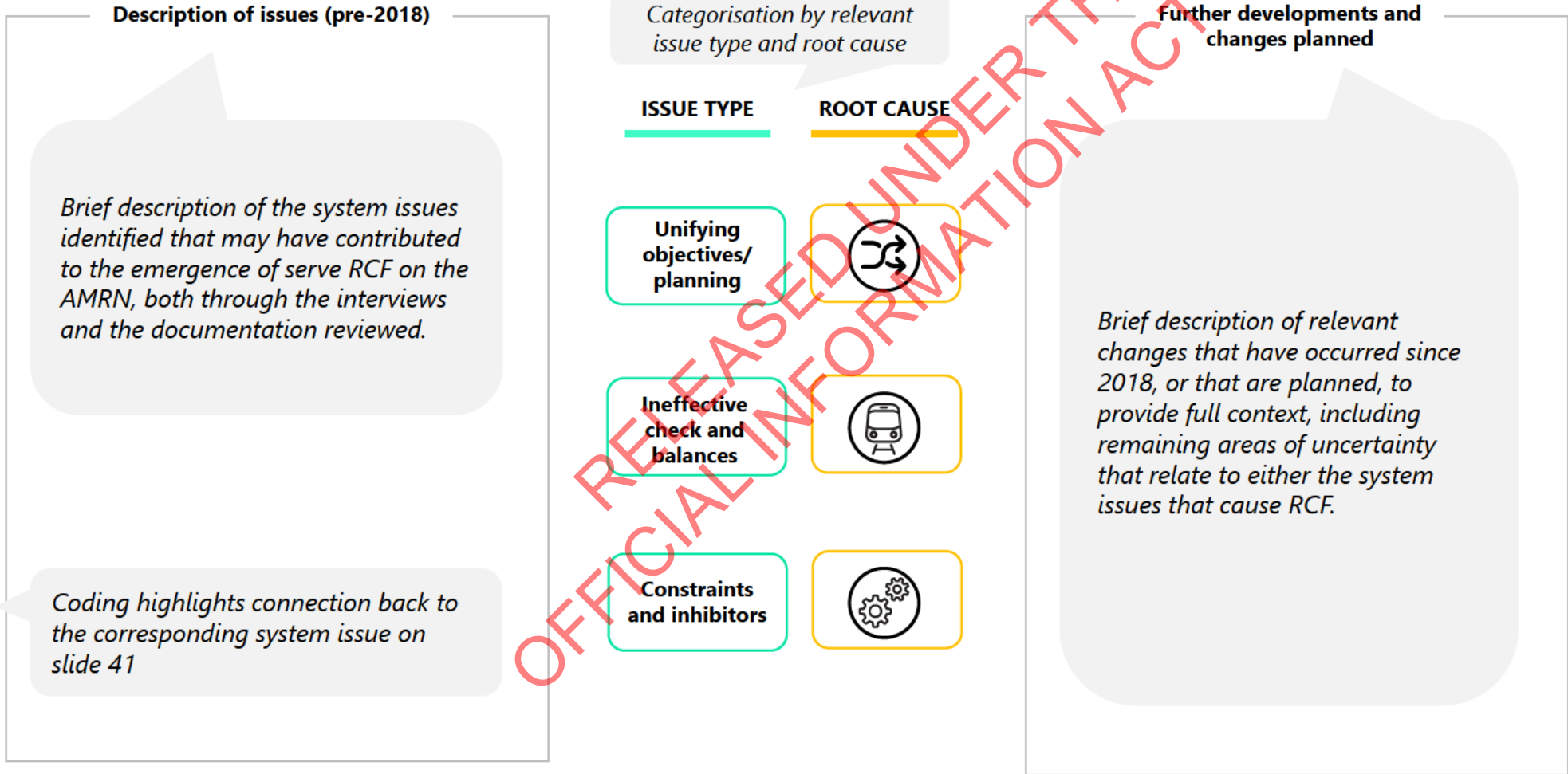
Issue requires further validation

Primary driver of root cause



System issues analysis

For each system issue identified, we provide a description of issues in the lead up to the RCF situation. We also capture subsequent changes and indicate remaining areas of uncertainty.



Track standards and codes

Why did Track Codes and Standards not keep pace with the changing demands of the Auckland metro rail network, and were inspections sufficient to understand declining asset condition?

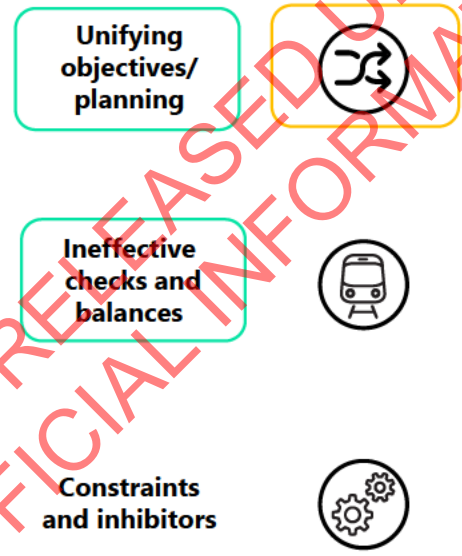
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- 8
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Description of issues (pre-2018)

Codes and standards related to track inspections and maintenance were the sole responsibility of KR. Changes to Track Codes and Standards are approved by KR Professional Heads, who can agree to derogations. WKS reviews adherence to standards, but not the standards themselves. It is recognised that KR's codes and standards were not up to the standard required for a modern metro network. In 2014, there were recommended changes to Track Codes and Standards, including a recommendation for more frequent and detailed inspections (NR 2014). WSP also recommended enhancements to Track Codes and Standards to align with other jurisdictions with metro & mixed traffic (WSP 2019). Several interviewees stated KR maintains the AMRN to a freight standard rather than to a more demanding metro passenger standard. WKS raised concerns that KR were able to modify their standards to suit business requirements. WK also had concerns about adherence to the standards, adequacy of inspections and understanding of asset condition (SSA 2019).

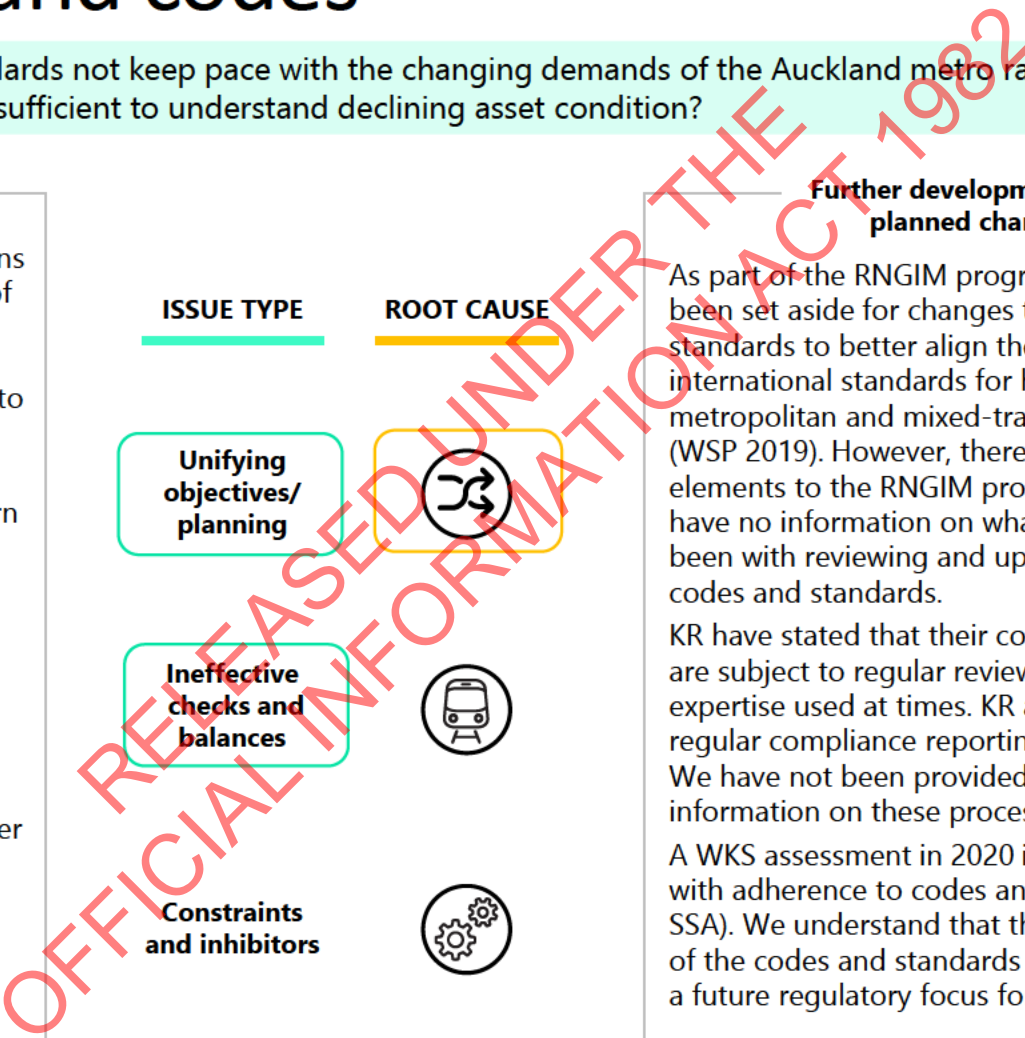
ISSUE TYPE

ROOT CAUSE



Further developments and planned changes

As part of the RNGIM programme, funding has been set aside for changes to KR's codes and standards to better align them with equivalent international standards for high-capacity metropolitan and mixed-traffic rail networks (WSP 2019). However, there are multiple elements to the RNGIM programme and we have no information on what progress has been with reviewing and updating relevant codes and standards. KR have stated that their codes and standards are subject to regular review with independent expertise used at times. KR also states there is regular compliance reporting to the executive. We have not been provided with detailed information on these processes and controls. A WKS assessment in 2020 identified issues with adherence to codes and standards (2020 SSA). We understand that the appropriateness of the codes and standards themselves may be a future regulatory focus for WKS.



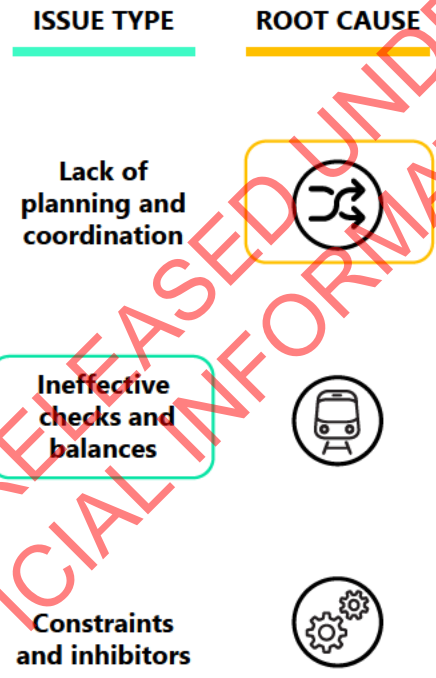
Safety regulator maturity

Would a better resourced and mature regulator have created the conditions to enable the issues that lead to accelerated RCF to be identified earlier?

9

Description of issues (pre-2018)

Before 2018, the regulator likely lacked the maturity and resourcing to pro-actively review the currency of KR inspection and maintenance standards and practices. In 2013, an independent review of the WKS rail team found that regulator was perceived as 'soft' and 'passive'. The rail regulatory manager within WKS was a tier 4 role and the regulator had a limited profile in the sector. Compliance assessments were outsourced. The review specifically highlighted the 'limited ability of the rail safety regulator team to conduct safety critical lead indicator "near miss" type incident analysis' to predict emerging issues. While steps were taken to implement this review's findings, a 2018 WK report noted the identified weaknesses were not fully addressed 'due to resourcing constraints'. WKS states it was not aware of any wider systemic AMRN condition issues until it undertook a SSA in response to the draft HLR report (SSA 2019). Interviews revealed differences of opinion over WKS' role as safety regulator, and where it should sit on the spectrum between co-regulation and prescriptive regulation.



Further developments and planned changes

Since 2018, the rail regulator has expanded significantly. It is overseen by a Tier 2 Director of Land Transport, which is a statutory role created in 2020. It adopted a revised Rail Safety Regulatory Operating Model, and then the wider Tū ake, tū māia regulatory strategy. We understand WKS is considering evolutions to their operating model taking account of low probability/high impact rail safety risks, and that a further review may take place. However, we have not been provided with development plans for this model. In 2019 and 2020, WKS played an active role in overseeing KR's management of the Auckland RCF issues, noting its intervention was prompted by intelligence received from WKI. Interviewees noted that WKS as regulator is increasingly active. However, while the NRIAF was convened by WKS, its purpose is currently under review. We understand one proposed workstream for NRIAF was to examine whether new safety guidance or industry regulations were required. We understand that neither WKS nor MoT are currently pursuing the development of new rail safety regulations.

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NRSS governance

What was the role of the NRSS in the approval of the EMU wheel profile and associated running rights approval process?

Description of issues (pre-2018)

11

The National Rail System Standards (NRSS) are used to control operations on KR's National Rail System (NRS), including train interoperability. The NRSS-Executive (NRSS-E) manages the development, amendment, and application of the NRS. As owner and maintainer of the NRS, KiwiRail chairs the NRSS-E and industry licence holders such as CAF and Transdev attend.

We understand NRSS-E had no involvement in the EMU procurement. A derogation was sought from the NRSS in relation to the EMU wheel profile and this was approved by KR in 2014.

12

In 2013, ATRS found that, in relation to the NRSS, 'the current process for the management of a wide range of the standards is in need of a significant overhaul to ensure that standards are kept current through the establishment of a clear management structure and resources to achieve effective oversight.' A 2016 review confirmed the ATRS findings and recommended changes to the governance and operation of the NRSS (MJ 2016). WK also noted that NRS 4 Risk Management had become obsolete and had not been updated for changes in health and safety legislation in 2015 (SSA 2019).

ISSUE TYPE **ROOT CAUSE**

Unifying objectives/ planning



Ineffective checks and balances



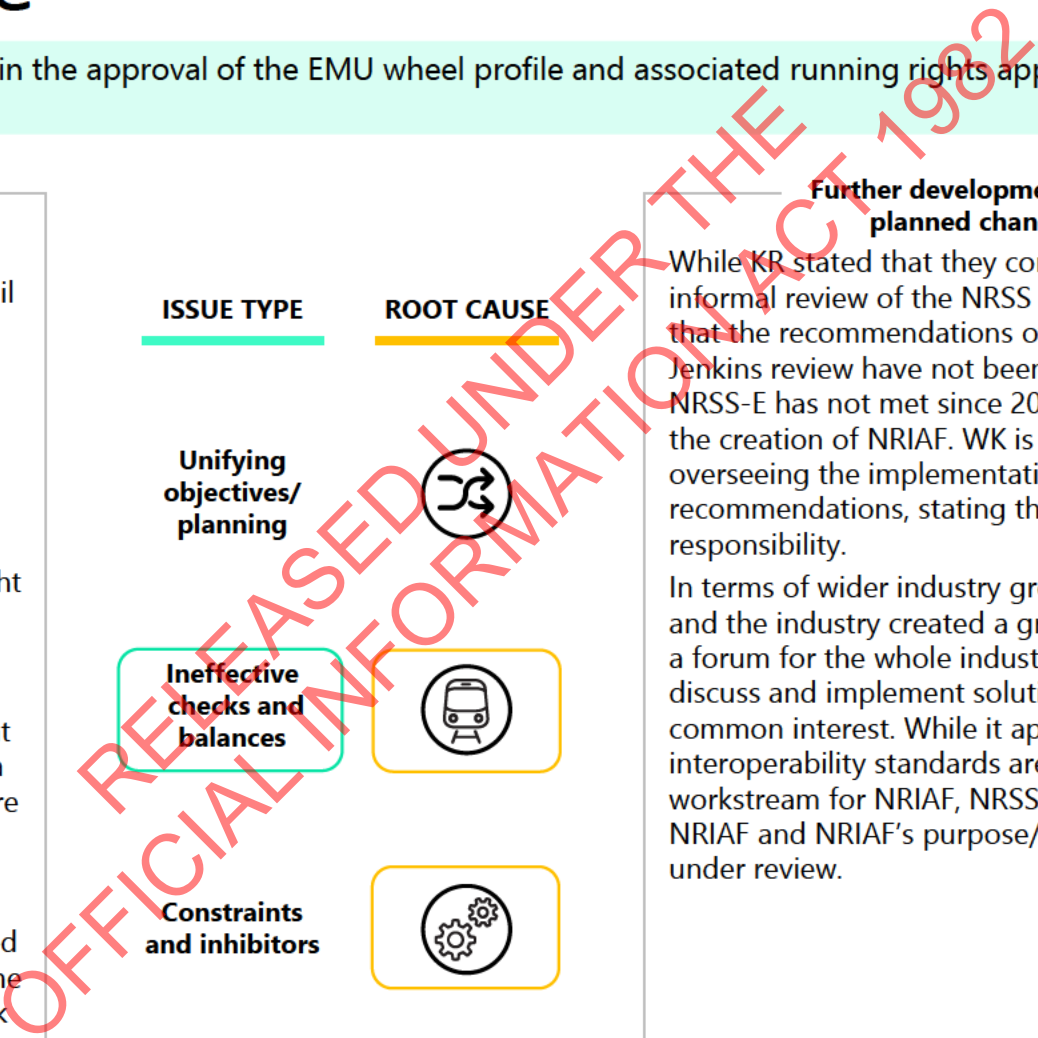
Constraints and inhibitors



Further developments and planned changes

While KR stated that they conducted an informal review of the NRSS in 2018, it appears that the recommendations of the 2016 Martin Jenkins review have not been implemented. The NRSS-E has not met since 2019, with KR citing the creation of NRIAF. WK is not actively overseeing the implementation of the MJ recommendations, stating that NRSS is KR's responsibility.

In terms of wider industry groups, in 2020, WK and the industry created a group, the NRIAF, as a forum for the whole industry to identify, discuss and implement solutions to matters of common interest. While it appears that interoperability standards are a potential workstream for NRIAF, NRSS is still separate to NRIAF and NRIAF's purpose/focus is currently under review.



EMU design and WRI optimisation

Did the system lead to the procurement of EMU's without a full understanding of the WOL impact?

5

Description of issues (pre-2018)

The EMUs were introduced without a corresponding change to below rail infrastructure and maintenance practices. The EMU procurement was originally managed by the Auckland Regional Transport Authority, before being transferred to KR in 2009. AT have stated that KR developed the EMU specification and ran the procurement process. The final phase of the procurement process was transferred to AT in 2011. A contemporary document suggests there was a joint AT-KR project governance group for the final stages of the procurement process (AT 2011).

There are differing stakeholder views on whether concerns were raised during the procurement process regarding potential maintenance impacts stemming from the design of the EMUs. The Root Cause Review states that KR raised concerns, during running rights approval, that the EMU wheel profile would impact on rail maintenance requirements. However, AT and CAF both state that they were not aware of KR raising such concerns, and the other issues that were raised at the time were resolved.

6

ISSUE TYPE

ROOT CAUSE

Unifying objectives/ planning



Ineffective checks and balances



Constraints and inhibitors



Further developments and planned changes

We understand a wheel rail interface group was established between 2017 and 2019, including AT, CAF and KR to review WRI issues. This group stopped meeting in late 2019.

The Root Cause Report identified that the concerns related to EMU WRI and yaw stiffness would best be addressed through the establishment of relevant inter-stakeholder technical groups. We are still unsure if such groupings have been established, its membership, and how findings and trade-offs will be agreed and implemented. The previous 2017-19 WRI group was unable to reach agreement on a way forward.

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Multiple roles of parties

1 MROM roles and responsibilities

Did competing interests limit the identification of, and response to, the challenges and pace of change facing the AMRN?

Description of issues (pre-2018)

The effective management of a rail system requires balancing a complex set of interests. Under the MROM, the planning and operation of the AMRN system has been disaggregated across several organisations.

Under the ANAA, there are different interests between AT (access for PT services) and KR's objectives (access for freight and maintenance). Within AT, there is a trade-off between investing for the long term (as it is responsible for the development of Auckland's transport system) and maximising short term performance and maintaining affordability (which may incentivise less maintenance access and investment). Within KR, there is a trade off between balancing access for maintenance and its freight and passenger services, and its metro access seekers. There was concern raised that KR runs freight through blocks of lines (thus compromising the efficiency of works), and concerns regarding the relative position of the AMRN within KR's business.

The dual role of WK as regulator and funder was also highlighted as a potential conflict, noting that WKI had a limited role in the AMRN system prior to 2018.

ISSUE TYPE	ROOT CAUSE
Unifying objectives/ planning	
Ineffective checks and balances	
Constraints and inhibitors	

Unifying objectives/ planning



Ineffective checks and balances



Constraints and inhibitors



Further developments and planned changes

WKS is now headed by a statutory Director of Land Transport. It was also noted that the dual role was in fact helpful in the regulator becoming aware of issues with the AMRN track infrastructure through access to the 2019 HLR draft report.

KR, AT and Transdev formed the ANAA Working Group in 2018, which successfully developed a business case and secured funding for the RNGIM programme,. RNGIM has the objective of addressing below rail infrastructure issues and improving asset management practices.

We understand KR has changed its organisational structure to ensure the AMRN is elevated, and that this structure is continuing to evolve. However, we have not been provided with detailed information on how the KR organisational structure has evolved over the past decade.

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Responsibility for catch-up renewals

There was no agreed definition or responsibility for funding 'catch-up' renewals between central and local government.

13

Description of issues (pre-2018)

The 2014 review of the AMRN by Network Rail Consulting concluded that the network was not fit for purpose and recommended an investment of ~\$100 m. The 2015 RLTP noted that AT and KR had prepared a rail development pathway setting out investments required to deliver a robust and reliable rail system to support growth in both passenger and freight services. However, it noted a lack of funding for catch up renewals with *'no clear avenue for the funding of rail infrastructure improvements. The Transport Agency is currently unable to fund rail infrastructure [before 2018] and KiwiRail's investment is limited to freight projects where there is a demonstrated commercial return'*. We understand no formal funding requests were made for these works prior to 2018. KR noted that the national rail network was in managed decline during this period and there was perceived limited appetite for rail investment. A 2017 MoT paper highlighted views that the issue of catch up renewals had not been resolved. Interviewees noted that the ANAA was intended to fund steady state maintenance and renewals, rather than to fund rehabilitation of the AMRN.

14

Further developments and planned changes

The introduction of the transitional rail activity class in 2018 enabled the RNGIM programme to be funded at 100% FAR, with the programme focused on addressing the WSP recommendations. We understand the programme will likely be insufficient to close the existing infrastructure deficit. AT and KR are jointly working on a programme business case to identify the ongoing asset management and related funding requirements for the AMRN. However, there is no dedicated funding for further Auckland renewals from the NLTF. Instead, funding must come through the ANAA, and AT's share of this is funded at 51% FAR from the NLTF, which could mean there is an ongoing affordability constraint.

ISSUE TYPE

ROOT CAUSE

Unifying objectives/
planning



Ineffective checks and
balances



Constraints
and inhibitors



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Regulator role limited by funding

Was Waka Kotahi's ability to effectively regulate rail safety limited by funding?

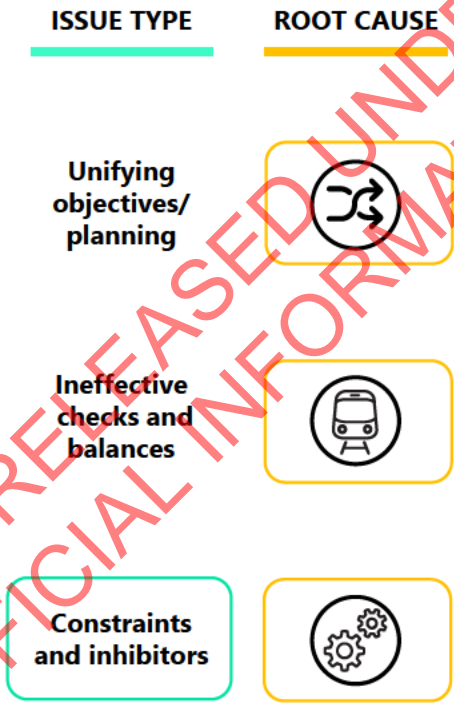
15

Description of issues (pre-2018)

In 2018, it was identified that Waka Kotahi had insufficient funding to effectively carry out the rail safety regulatory function.

While resourcing increased from 10.5 FTE to 15 FTE between 2015 and 2017, the regulator was still not resourced to achieve the intended safety outcomes in its operating model. 'The opportunity cost of this approach is that wider, risk-based activities cannot occur (systems and incident investigations, intelligence regarding critical risk, and management of identified critical risk) all of which are related to avoiding a catastrophic accident occurring.' (Rail Safety Regulator Consultation, 2018).

Operating costs were averaging \$2.4 million, while the funding requirement to achieve an efficient and effective rail regulator were estimated at \$3.5 million (CRIS 2018)



Further developments and planned changes

In 2018, WKS revised their Rail Safety Regulatory Operating Model, which identified the additional resourcing required to enable the rail regulatory function to be carried out effectively. In 2019, the uplift in funding for the rail regulator was approved and implemented.

Since then, there has been a significant uplift in investment in the rail system, including the recent adoption of the Rail Plan and RNIP.

The NRIAF, the purpose and focus of which is currently under review, may also explore whether there is a need for greater regulatory prescription in some areas.

In 2018, it was noted there would be a review of the current WKS funding model and cost requirements commencing in 2020. We understand that such a review will be considered after the current roading fees and funding review is complete. We also understand safer rail team is in the process of reviewing and updating its operating model to align with Tū ake, tū māia. However, we have not seen details of these activities.

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Industry governance

Did the effectiveness of governance under the ANAA and the broader industry limit the identification of, and response to, the challenges and pace of change facing the AMRN?

Description of issues (pre-2018)

Rail systems are complex integrated networks. When system responsibilities are disaggregated, like the AMRN, effective governance mechanisms are required to ensure the service outcomes are delivered.

The governance of the AMRN may have contributed to the inability to improve the underlying asset condition and asset management practices. Waka Kotahi's 2019 SSA observed a lack of understanding of each party's needs, constraints and inability to compromise under ANAA. Under the ANAA, there are different interests between AT (access for PT services) and KiwiRail's objectives (access for freight and maintenance). WK's assessor suggested that the parties would benefit from appointing an independent chair to the ANAA working group (SSA 2019).

Outside of the ANAA we are not aware of a standing forum that existed during this time and involved both WK and the Crown. Interviewees noted that there was an inability to escalate issues beyond the ANAA parties to address issues such as funding.

ISSUE TYPE	ROOT CAUSE
Unifying objectives/ planning	
Ineffective checks and balances	
Constraints and inhibitors	

Further developments and planned changes

The ANAA Working Group was formed in 2018 to address declining network performance, which led to the High Level Infrastructure Review (HLIR) and RNGIM Business Case. We understand this, and the Network Steering Group, have been largely subsumed into the AMR PcG (see below). ANAA relationship committees and the Network Timetable Committee also function with a more operational focus.

The AMR PcG is focused on providing oversight for the implementation of the Auckland Metro Recovery programme. The Crown attends the PcG. However, WKI does not. KR have stated this group is being folded into a senior stakeholders group.

Another governance group, the Auckland Metro Programme Governance Board, exists to oversee major capital investment in the AMRN, with KR, AT and WKI attending.

We have not been provided with a clear stocktake of all these groups and how they interrelate. We understand AT and KR are jointly considering changes to AMRN governance arrangements.

NRIAF and NRSS have been addressed on slide 44 and 45.

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4

Ability of the ANAA to adapt

The commercial nature of the ANAA means there is limited practical means for agreeing changes to incentives.

Description of issues (pre-2018)

4

The ANAA commercial structure and budgeting arrangements are likely to have had some influence on the state of the asset during this period. Both AT and KR faced affordability constraints. While the ANAA has a triennial basis, budget negotiations between the parties occurred annually. The absence of a long term focus may not have provided an environment for KR to grow its capacity and capability, nor facilitated transparency over asset condition.

10

The ANAA obliges KR to use its best endeavours to meet the KPIs in the agreement, with incentives limited to the performance fee and limited enforcement mechanisms beyond escalating matters to Chief Executive level. The performance fee and ANAA access fee is small relative to the scale of KR's commercial business and Crown funding.

18

Interviewees noted KPI targets do not reflect passenger experience and are not aligned with above rail KPIs. AT stated that KPIs were never fully developed as intended. Agreement of both parties is required to reset KPI targets and change KPIs. KPI bands were tightened ahead of FY 2017-2018.

ISSUE TYPE

ROOT CAUSE

Unifying objectives/ planning



Ineffective checks and balances



Constraints and inhibitors



Further developments and planned changes

We understand the ANAA Working Group attempted to revisit the KPIs in 2018, but this did not progress.

We understand an ANAA 'reset' programme of work is planned by KR to ensure the ANAA is updated for the introduction of CRL. However, this is understood to be in its early phases and we have not been provided with detailed information on this work.

We also understand AT and KR are engaging on improvements to the NMP and refinement of KPIs within the current ANAA.

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Network access

All independent reviews highlighted the need to improve network access for AMRN maintenance and renewals the productivity of access time.

3

Description of issues (pre-2018)

Under the ANAA, track possession plans are agreed by the Auckland Network Timetable Committee, which includes representatives from KR and AT. We understand that the committee works through unanimity, where the mixed incentives of participants may have impacted maintenance access.

Questions were raised around whether there was sufficient provision, and effective use, of access windows. With increased network use, access windows were reducing. WSP identified that the efficiency of the work programme was being compromised by lack of track access and windows. Questions were raised about the productivity of the block of lines, with freight trains running through and a lack of modern maintenance practices, particularly in relation to equipment. A lack of daylight inspections due to metro services was also identified (interviews and WSP 2019). WKS also raised specific concerns around the lack of daylight inspections (SSA 2019). One interviewee noted that there was lack of cyclical maintenance windows to performance pro-active maintenance.

ISSUE TYPE

ROOT CAUSE

Unifying objectives/ planning



Ineffective checks and balances



Constraints and inhibitors



Further developments and planned changes

Future access requirements will strongly relate to the asset management plan. RNGIM is also funding new equipment, infrastructure and training to improve access productivity.

We have not been provided with information on any planned changes to access arrangements, although interviewees have noted significant access will be needed to the AMRN over the coming years to implement RNGIM, and for NZUP and CRL works.

KR have stated there are ongoing discussion between them and AT on planning for access related to the capital works programme.

4

Capacity and capability

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Asset management

Systems were in place to collect asset data but a detailed asset management plan for the AMRN has not been developed, asset management practices did not evolve to meet evolving requirements.

2

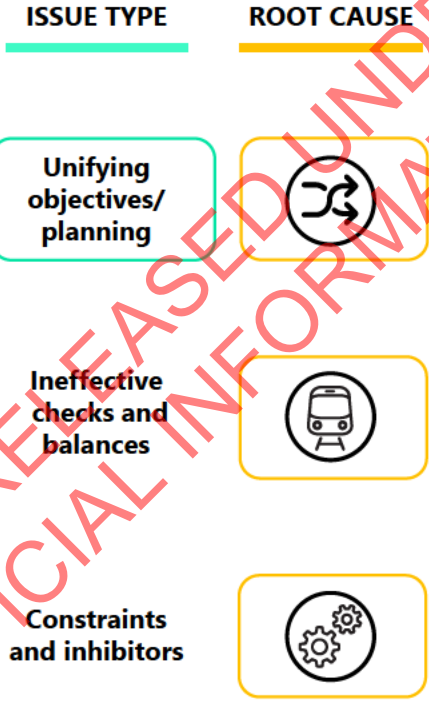
Description of issues (pre-2018)

The AMRN has lacked a long-term asset management plan, including above and below rail considerations. In 2008, the Auditor-General identified that there was no long-term plan for the rail network and limited network information (OAG 2008).

An asset management system, Maximo, was introduced in 2014 to record below rail asset information and plan maintenance and renewals. However, a detailed asset management plan for the AMRN was not developed.

While the ANMPs contain high level strategies and activities for AMRN, we observed that much of the content of the network management plans has remained largely unchanged since they were first introduced in 2013. KR’s asset management practices during this period were primarily reactive (WSP 2019, Root Cause Report).

In 2019, WKS identified that the maintenance programme was not keeping pace and that infrastructure was not being maintained in accordance with KR standards. WKS also expressed concern that the underlying asset condition was not well understood by KR (SSA 2019).



Further developments and planned changes

A key recommendation contained in the Root Cause Report and WSP HLIR is for the ANAA parties to collaborate on the development of a multi-year asset management plan for the AMRN. The RCF working group also recommended the development of a separate 30-year plan for rail grinding as part of a comprehensive AMRN maintenance and renewals regime.

We do not know if this grinding programme has been developed or not.

We understand KR and AT are developing a programme business case for the 30 year development of the AMRN. The Ministry of Transport also understands that a dedicated asset management plan for the AMRN will be created (integrating both above and below rail). However, we do not know if there will be a mechanisms in a refreshed ANAA for keeping this plan current. The shift to a proactive maintenance regime that is necessary for a modern metro system was described by interviewees as a significant challenge.

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References

AT 2011 = Business Report – October 2011. Auckland Transport, October 2011.

OAG 2008 = Maintaining and renewing the rail network. Controller and Auditor-General, 2008.

Aurecon 2011 = Track Asset Renewals – Auckland Metro Area TOR – Track Study KiwiRail. Aurecon, November 2011.

ANAA = Auckland Network Access Agreement, executed in 2013.

CRIS 2018 = Stage 2 Cost Recovery Impact Statement Sustainable funding for the rail safety regulator. NZ Transport Agency Waka Kotahi, December 2018.

Rail Safety Regulatory Consultation 2018: Rail Safety: the case for an enhanced New Zealand regulator. NZ Transport Agency Waka Kotahi, October 2018.

Root Cause Report = Auckland Metro RCF Working Group: Root Cause Assessment. Prepared for KiwiRail and Auckland Transport, 17 August – 1 June 2021.

WK 2018 = Rail Safety: the case for an enhanced New Zealand regulator. NZ Transport Agency Waka Kotahi, October 2018.

SSA 2019 = 2019 Special Safety Assessment – Auckland Metropolitan Rail Network Status – Final Report. NZ Transport Agency Waka Kotahi, September 2019.

CP 2010 = Cabinet Paper: Metro Rail Network Costs for One Year [FY2011], April 2010.

MROM 2017 = MROM Review, Phase 1 – Draft Issues paper for consideration and comment. Ministry of Transport, 13 April 2017.

WSP 2019 = Rail Network Growth Impact Management (RNGIM) SSBC. WSP | OPUS, 2019.

WSP HLR 2019 = Auckland Rail Network High Level Infrastructure Review. WSP | OPUS, 2019.

ANMP 2016 = Auckland Network Management Plan, FY16.

ANMP 2017 = Auckland Network Management Plan, FY17.

ANMP 2018 = Auckland Network Management Plan, FY18.

ANMP 2020 = Auckland Network Management Plan, FY20.

2015 RLTP = Auckland Regional Land Transport Plan 2015-2025.

NR 2014 = Auckland Metro Network Management Plan Track Study, Final Report. Network Rail Consulting, 12 June 2014.

ATRS 2013 = Independent Review Report into Rail Systems Team for NZTA. Australasian Transport Risk Solutions Pty Limited December 2013.

MJ 2016 = Review of the Governance, Operation and Management of the National Rail System Standards, Final Report. Martin Jenkins, 5 December 2016.

Information
requested



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Further information

A range of further information was requested from the Review participants to confirm and validate some of the system issues identified through interviews and our document reviews. A summary of the information received is outlined below.

Issue	Participant	Information requested	Information received
Track Codes & Standards	KR	<ul style="list-style-type: none"> Detail on the process for review and assurance of KR's standards, including interface with WKS and third-party advice and review. Register of relevant codes and standards, including description of KiwiRail's code and standards taxonomy, and history of reviews and updates going back 2010. Governance process for compliance management and derogations. 	<ul style="list-style-type: none"> We have not been provided with detailed information on codes and standards. KR has supplied us with a bullet point overview outlining key roles and responsibilities, the review process, and management of derogations. KR noted it funded a review of its below rail engineering codes and standards framework and content across all disciplines, which took place in 2015.
Regulator maturity	WKS	<ul style="list-style-type: none"> Clarification of the relationship between the Rail Safety Regulatory Operating Model and the Tū ake, tū māia regulatory strategy. Details on any areas of consensus within NRIAF for new standards/Railways Act rules. Details on the governance and oversight of the rail regulatory maturity model, including progress the rail actions in Tū ake, tū māia. 	<ul style="list-style-type: none"> WKS have stated that its operating model preceded the Tū ake, tū māia regulatory strategy. WKS have stated they are in the process of reviewing and updating their operating model to further align with Tū ake, tū māia and their risk framework. We have not been provided with detailed information on potential priority areas for new standards or regulations. While there was an initial focus on this in the NRIAF work programme, NRIAF's purpose / focus is currently under review by WKS. We have not been provided with detailed information on the governance and oversight of rail regulatory maturity model and progress. WKS have stated they report regularly to their board and executive on progress against Tū ake, tū māia.

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Further information

A range of further information is required from the Review participants to confirm and validate some of the system issues identified through interviews and our document reviews. A summary of the information received is outlined below.

Issue	Participant	Information requested	Information received
NRSS	KR, WKS, and Ministry of Transport	<ul style="list-style-type: none"> • Status of the Martin Jenkins recommendations regarding the NRSS. • Clarification of the current relationship between the NRSS-E and NRIAF. • A register of NRSS, including dates of last review and update, particularly for those related to WRI. • Role of NRSS-E during the EMU procurement period, particularly the relationship to specification E1317. 	<ul style="list-style-type: none"> • We have not been provided with detailed information on implementation of the MJ review recommendations. We understand that WKS is not taking an active role in overseeing the review's recommendation. WKS have noted that KR is responsible for reviewing NRSS standards to ensure that are appropriate. KR stated that the NRSS last met in late 2019. • WKS have stated that NRIAF and NRSS-E are two separate groups serving separate functions. NRSS-E focuses on the governance of national standards, its review, appropriateness, application, whereas NRIAF is a forum consisting of members from the rail industry in NZ i.e Metro operators, industrial operators, and the heritage/tourism operators. NRIAF aims to encourage communication and collaboration among the industry members. • Other stakeholder feedback noted that there was discussion around NRSS integrating into NRIAF, but this does not seem to have progressed. WKS have stated that the appropriateness of the NRSS are the NRSS executives' responsibility and scope, not part of NRIAF's functions or intent. • KR referred us to the NRSS register on their website. Based on the website, the interoperability standard was last reviewed in 2013 although KR noted that an informal review of the NRSS took place within KR in 2018. • KR have stated that NRSS-E had no direct role in the Auckland EMU procurement, noting NRSS-E advises on standards but it is up to the above and below rail operators to deliver against those standards.

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Further information

A range of further information is required from the Review participants to confirm and validate some of the system issues identified through interviews and our document reviews. A summary of the information received is outlined below.

Issue	Participant	Information requested	Information received
EMU design and WRI	KR and AT	<ul style="list-style-type: none"> Confirmation of KR's involvement in the final stages of the AM Class EMU procurement, including technical specification. Confirmation of the process and rationale for permitting the current EMU wheel profile through granting of running rights, including any related derogations and changes to NRSS. How did KR resolve its concerns related to the potential below rail maintenance impact? What was the outcome for WRI group between 2017-19? 	<ul style="list-style-type: none"> AT have stated that KR led the development of the technical specification for, and procurement of, the EMUs prior to this being transferred to Auckland Transport (after contract award). They state KR staff and advisors transferred with the project, and KR remained involved throughout. KR commissioned an independent peer review of the dynamic performance of the unit. This generated a number of queries that CAF were required to respond to, including revalidation of model results. AT states all outstanding items were resolved through clarification, testing or derogation. AT have stated that while they were not aware of any changes to the NRSS themselves related to the EMUs, noting 'A derogation was formally sought and approved in relation to the wheel profile. This profile was demonstrated to reduce wheel flange wear given rail profile and track geometry in Auckland. [...] Analysis of track forces and track damage exerted by the vehicle was undertaken and shown to be below required limits and therefore accepted. The derogation placed an obligation on AT to revert to the standard profile should issues arise in Auckland. This was not requested and the wheel profile was not identified as an issue by the peer reviewer.' Both AT and CAF stated that they were not aware of any KR concerns around the EMU's potential below rail maintenance impact at the time of their introduction. KR have not addressed this maintenance impact point in detail in their feedback, but noted that 'at the time of the final approval the EMUs were either complete, or on the water'. We understand that no conclusions or agreement could be reached from the 2017-19 WRI group.

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Further information

A range of further information is required from the Review participants to confirm and validate some of the system issues identified through interviews and our document reviews. A summary of the information received is outlined below.

Issue	Participant	Information requested	Information received
16 17 Multiple roles of parties	KR	<ul style="list-style-type: none"> How has KR's organisational structure evolved over the period from 2010 to today in relation to the AMRN. 	<ul style="list-style-type: none"> KR has provided a high level overview and stated that the organisational structure has changed a number of times since 2010, but core responsibilities of the AMRN have stayed relatively constant. We have not been provided with detailed information on this.
13 14 Catch-up renewals	AT, KR	<ul style="list-style-type: none"> Confirmation of the KR and AT funding requests to the Crown or WKI for AMRN catch up renewals from 2014-2017. An estimate of the residual catch up renewals deficit post-RNGIM and the required long-term maintenance and renewals funding requirement. 	<ul style="list-style-type: none"> WKI have no record of a funding application for the catch up renewals that were included in the 2015-18 RLTP (during the 2014-17 period). KR stated they do not believe there were any formal budget bids related to these renewals during 2014-17. AT stated they assisted KR with a budget bid to the Ministry of Transport in 2018, which then informed the new Transitional Rail activity class. Further, as WKI previously had a limited role in rail funding, there were no applications to WKI directly because under previous GPS'. AT have stated the original RNGIM business case preferred option did not cover the full workbank identified at the time, and that the RNGIM workbank and costs now appear to be underestimated. KR and AT are developing a programme business case that should identify the residual requirements.
15 Regulatory funding	WKS and Ministry of Transport	<ul style="list-style-type: none"> Confirmation of whether there has been a post-2018 rail regulator funding and maturity progress review. 	<ul style="list-style-type: none"> WKS noted that a 'plan to review rail regulatory funding model will be considered after the roading fees and funding review is complete.' They also note that they continue to develop their regulatory model for the low probability and high impact risks of the rail system.

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Further information

A range of further information is required from the Review participants to confirm and validate some of the system issues identified through interviews and our document reviews. A summary of the information received is outlined below.

Issue	Participant	Information requested	Information received
Industry governance	KR and AT	<ul style="list-style-type: none"> Confirmation of WKI attendance at the AMR PcG. Information on how the AMR programme governance operates within KR and interface with other industry participants. Clarification on which forums are operational in relation to the AMRN, and how they relate to the ANAA. 	<ul style="list-style-type: none"> We have been told that WKI does not attend the AMR PcG. AT have stated 'The AMR project was stood up to deal with the initial urgent works, cutting across the established and funded RNGIM works. AMR reported to KR COO whilst RNGIM dual reported via Network Services and KR CPAD (Capital Projects and Asset Development). [...] Other aspects of the RNGIM programme were then subsumed into other workstreams. It is our understanding that KR are currently reviewing existing governance arrangements.' AT have stated: 'significant changes in the funding regime, combined with rapid mobilisation of capital projects and changes in personnel across organisations has resulted in a degree of uncertainty in this area. Governance is currently under review by AT and KiwiRail. In practice: <ul style="list-style-type: none"> Business As Usual / Operational Forums - These are primarily based around the contractual requirements of the ANAA and Operator Contract [...] The ANAA steering group and ANAA working group was established under this structure, but was overtaken by the Auckland Metro PcG established on the emergence of AMR. Capital Projects Governance – facilitated by KR CPAD with the established Metro Programme Control Group and Programme Governance Board. The latter includes NZTA and MOT and includes the NZUP projects.' AT have noted there also separate governance forums related to CRL, Future of Rail, and Metro Service Operator Transition.

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Further information

A range of further information is required from the Review participants to confirm and validate some of the system issues identified through interviews and our document reviews. A summary of the information received is outlined below.

Issue	Participant	Information requested	Information received
ANAA performance	KR and AT	<ul style="list-style-type: none"> Details of the ANAA reset workstream. Information on any requests for changes to the ANAA performance regime. 	<ul style="list-style-type: none"> No detailed information has been supplied. KR have stated that the ANAA reset is at early stage currently and will be informed by other workstreams, such as the asset management plan and the joint-AT-KR AMRN development programme business case. AT have noted they are currently in discussions with KR regarding improvements to the NMP and refinement of KPIs. However, they are unsure if this is the same ANAA reset workstream reported within KR. AT have stated that 'the original ANAA network performance KPIs were not fully defined within the ANAA schedules and were intended to be developed further. This was not done. [...] The ANAA Working Group attempted to revisit the KPIs in 2018. This did not progress.' Discussions regarding updates to the KPIs are apparently ongoing, and will involve the new metro service operator. KR has stated that during its ANAA's development, it was acknowledged it would need to be reset for the post CRL world.
Asset management	KR	<ul style="list-style-type: none"> Details of the status of AMRN asset management plan. 	<ul style="list-style-type: none"> No detailed information has been supplied. KR have stated that as part of their Auckland Metro Transformation Programme, they are developing 'a fit for purpose asset management system appropriate' for the post-CRL AMRN, and a draft will be completed by the end of 2022. KR declined to provide us with the results of their asset management maturity assessment.
Network access	KR	<ul style="list-style-type: none"> Details of any recent or planned changes to the planning and governance of AMRN access arrangements. 	<ul style="list-style-type: none"> No detailed information has been supplied. KR have stated that there are ongoing discussions between KR and AT on planning access (and ongoing governance) for the capital works programme. This includes communication of the network access requirements for customers.

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22 December 2021

OC211016

Hon Michael Wood**Minister of Transport**

RESEARCH INTO THE USE AND EFFECTIVENESS OF ALCOHOL INTERLOCKS

Purpose

Update you on research into the use and effectiveness of alcohol interlock sentences.

Key points

- Since the introduction of mandatory alcohol interlock sentences for serious and repeat drink driving offenders in 2018, the number of these sentences imposed by the courts has increased significantly.
- However, research conducted by the Automobile Association (AA) shows that only around a half of those offenders eligible for the sentence actually receive it. Of those, only around two-thirds go on to have an alcohol interlock device installed in their vehicles.
- Responsibility for installing an alcohol interlock device rests with the person subject to the sentence. There is no legal timeframe in which the device must be fitted. If the person does not apply for an alcohol interlock licence and get the device installed, they remain disqualified from driving.
- Unlike other sentences imposed by the courts, the alcohol interlock sentence requires offenders to pay costs associated with the installation and monitoring of the alcohol interlock devices. Subsidies are available through Waka Kotahi NZ Transport Agency for those who meet the financial eligibility criteria, but monthly fees of around \$110 - \$150 must still be paid by the individual.
- A number of aspects of the alcohol interlock sentence warrant further work. From Te Manatū Waka's perspective, the biggest risk lies with the fact that no agency has responsibility for following up with offenders that do not get the device installed in their vehicle. We will raise this issue with Waka Kotahi in the first instance, to determine what response can be taken to strengthen oversight of the regime. We will report back to you in early 2022.
- Given that alcohol consumption is a contributing factor to a large number of deaths and serious injuries on our roads, we will consider including a review of the alcohol interlock sentence regime in the 2021 – 2025 *Road to Zero* Action Plan. Work on this

Action Plan is currently under development, and a draft will be provided to you in May 2022.

Recommendations

We recommend you:

- 1 **note** that Te Manatū Waka will consider a review of the alcohol interlock sentence regime in the 2021 – 2025 *Road to Zero* Action Plan, with a particular focus on strengthening the accountability and oversight of the regime.



Robert Anderson
Manager, Mobility and Safety
 22/12/2021

Hon. Michael Wood
Minister of Transport
 / /

- Minister's office to complete:**
- Approved
 - Declined
 - Seen by Minister
 - Not seen by Minister
 - Overtaken by events

Comments

Contacts

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Jo Gould, Principal Adviser	s 9(2)(a)	

RESEARCH INTO THE USE AND EFFECTIVENESS OF ALCOHOL INTERLOCKS

Alcohol interlock sentences became mandatory for repeat and serious drink driving offenders from July 2018

- 1 From 1 July 2018, the Land Transport Act 1998¹ was amended to make alcohol interlock sentences mandatory for anyone convicted of two or more drink driving offences within a five-year period. The sentence also became mandatory for anyone convicted of driving with alcohol in their system that exceeded a certain threshold (800 micrograms per litre of breath or 160 milligrams per 100 millilitres of blood, which is over three times the legal limit).²
- 2 A person subject to an alcohol interlock sentence can only drive a vehicle that has had an alcohol interlock device fitted. The device acts like an in-vehicle breathalyser. If the device detects alcohol on the driver's breath, the car will not start. The driver also needs to provide a breath sample at random times while the vehicle is in use. The device must be installed for at least 12 months in every vehicle the driver has access to.
- 3 When Cabinet agreed to make the alcohol interlock sentence mandatory, Cabinet noted international literature that showed these devices can reduce reoffending by an average of around 60 percent while the devices were fitted. The literature also pointed to the devices having a small residual effect on reducing reoffending once the device is removed, particularly when the sentence is integrated with rehabilitation measures.

There are limited exceptions set out in legislation which can result in the alcohol interlock sentence not being imposed

- 4 The court does not have to impose an alcohol interlock sentence in certain circumstances, even when the offender has been convicted of the qualifying offences. These include where the offender:³
 - has a medical condition that means they are incapable of providing a valid breath sample to activate an alcohol interlock device
 - does not have lawful possession of a motor vehicle, or
 - usually lives in a "non-serviced area"⁴ and is not prepared to drive to a serviced area for the alcohol interlock to be installed.

¹ Land Transport Act 1998, section 65AB.

² The alcohol limit for drivers aged 20 years and over is 250 micrograms of alcohol per litre of breath and the blood alcohol limit is 50 milligrams per 100 millilitres of blood.

³ Land Transport Act 1998, section 65AB (2).

⁴ A non-serviced area is defined in the Land Transport Act 1998 (section 2) as being 70 km or more from an approved provider's service centre.

For those sentenced to an alcohol interlock, there is no legal timeframe in which the interlock device must be fitted

- 5 Under the relevant provisions in the Land Transport Act 1998:⁵
- an alcohol interlock sentence disqualifies the person from obtaining a driver licence for a period of at least 28 days
 - after the disqualification period, the person is *authorised* to apply for an alcohol interlock licence. This licence requires the person to only drive a motor vehicle that has an alcohol interlock device fitted
 - if the person does not apply for the alcohol interlock licence, they will continue to be disqualified from holding or obtaining a driver licence.

The offender must pay for the installation and ongoing monitoring of the alcohol interlock device

- 6 A person sentenced to an alcohol interlock sentence must pay to have the device installed. There are currently two approved providers that can install the devices (the third provider is currently inactive due to global COVID-19 restrictions). These providers have agents in most towns and cities.
- 7 The offender must also pay monthly service and rental fees to the installer, as well as the cost of removing the device at the end of the sentence.
- 8 These fees collectively amount to between \$2,000 to over \$2,500 per annum, depending on the provider and the complexity of the fitting. This must be paid in addition to any fine imposed by the court for the underlying offence.
- 9 In making the sentence mandatory, the extra financial burden was acknowledged by Cabinet and it was agreed that a subsidy would be made available. The subsidy is funded through the Road Safety Activity class of the National Land Transport Fund. Those eligible for the subsidy still have to pay part of the rental and servicing costs of around \$110 to \$150 per month (depending on the provider).
- 10 The subsidy is available for a 15-month period, which allows the offender time to meet the exit criteria for the alcohol interlock sentence. After the 15-month period, an offender is liable for the full cost of the monthly rental.
- 11 Requiring offenders to pay the costs associated with a sentence is unusual. Offenders sentenced to imprisonment, community sentences or home detention are not required to contribute to the costs of their sentences.

Recent research on the use and effectiveness of alcohol interlocks

Research shows that while the number of alcohol interlock sentences has increased significantly, only around two-thirds of offenders have the devices installed

- 12 The Ministry of Justice publishes annual statistics on the number of people who received an alcohol interlock sentence. The sentence was first introduced in

⁵ Land Transport Act 1998, section 65AC(2).

September 2012. Annual data is currently available for the financial years from 2012/13 until 2020/21.

- 13 As indicated in the table below, the number of people who received an alcohol interlock sentence in 2020/21 was over 10 times greater than the number of people who received the sentence in 2017/18. This shows the impact of the legislative change that made these sentences mandatory from July 2018 for repeat and serious drink driving offenders:⁶

Table 1: Number of people who received an alcohol interlock sentence from 2012/13 to 2020/21

2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
151	251	260	364	303	371	3,563	3,575	4,138

- 14 The Automobile Association (AA) has published two research reports into alcohol interlock sentences.⁷ The research shows that just over half of those eligible for the mandatory sentence actually receive the order. Of those sentenced to an alcohol interlock, only around two-thirds install an alcohol interlock device in their vehicles.
- 15 The following graph from the AA research illustrates these trends, covering the six months following the introduction of the mandatory sentence in July 2018.

Graph: Number of people eligible for an alcohol interlock sentence from July 2018 – December 2018, and the number that went on to be sentenced to an alcohol interlock and had the device installed



⁶ From *Driving under the influence data tables*, available at: www.justice.govt.nz/justice-sector-policy/research-data/justice-statistics/data-tables/

⁷ Waters, Gerald (2019) *The Mandatory Alcohol Ignition Interlock Sentence in New Zealand* and Waters, Gerald (2019) *The New Zealand Alcohol Interlock Programme – A Process Review*, both available at www.aa.co.nz/about/aa-research-foundation/programmes/driver-impairment/

- 16 In a press release issued earlier this month, the AA highlighted that in 2020 alcohol interlocks stopped 37,061 attempts to use a vehicle because alcohol was detected on the breath of the driver.⁸ This amounts to around 100 attempts per day.
- 17 While highlighting the success of the devices in preventing those potentially over the legal alcohol limit from driving, the AA also pointed to the fact that around one in three people sentenced to an alcohol interlock did not end up with a device installed in their car. The AA criticised the lack of follow-up in the current system to ensure that the devices were fitted into vehicles.

Research into the effectiveness of alcohol interlocks will be published in early 2022

- 18 Te Manatū Waka has commissioned an evaluation of the impact of the alcohol interlock sentence on reoffending. The evaluation is expected to be published in early 2022. The evaluation compares reoffending data for those given an alcohol interlock sentence with those who were eligible but did not receive the sentence between 2013 – 2017 (before the sentence became mandatory). The Ministry of Justice provided the data, which included sample matching and reoffending analysis.
- 19 While there are some limitations with the data, the draft report shows that the group subject to the alcohol interlock sentence had lower reoffending rates for drink driving and disqualified driving over a two to four-year period. It is not possible to verify, however, whether those subject to the sentence actually had an interlock device installed.

Some aspects of the alcohol interlock sentence warrant further work

- 20 There are some aspects of the alcohol interlock sentence that require further consideration:
- The responsibility for installing an alcohol interlock device rests with the offender. Some offenders may be unable to afford to install the device, or may be struggling with other issues (including alcohol addiction) so do not complete the sentence. While they remain disqualified from driving, a number may continue to drive. There is no follow-up with the offenders by any agency. In Te Manatū Waka's view, this poses a significant risk. Accountability and oversight of the regime should be strengthened. We will raise this issue with Waka Kotahi in the first instance, to determine what response can be taken to strengthen oversight of the regime. We will report back to you in early 2022 on next steps.
 - When Cabinet approved the introduction of the mandatory alcohol interlock sentence, officials were directed to monitor uptake rates and identify any barriers to the sentence. Officials were also directed to review the regime's effectiveness, including whether the mandatory sentence should be extended to further groups of offenders, once three years of data become available after the legislative changes came into force. Although the three-year timeframe has now been reached, this review has not yet commenced.

⁸ Available at: www.aa.co.nz/about/newsroom/media-releases/safety/alcohol-interlocks-prevent-near-40000-attempts-to-drive/ [7 December 2021]

- The level of uptake of the alcohol interlock device subsidy has been lower than expected. The Waka Kotahi Board has recently approved an annual subsidy of \$0.7 million for the next three years. Work on developing a business case for the subsidy will continue, which could include consideration of whether the current subsidy level is sufficient. While an increase in the subsidy amount could lead to an increased installation rate by those who receive the sentence, there is a question about whether the financial eligibility thresholds should also be reviewed. Having offenders pay a portion of the cost was considered to be an appropriate incentive when the scheme was designed.
- Waka Kotahi has raised a number of technical issues with some of the alcohol interlock provisions in the Land Transport Act 1998 that need to be worked through to ensure that the legislation is effective and fit-for-purpose. These issues include looking at whether the sentence's objective should be included in the legislation, and looking at the criteria that offenders must meet to progress off the alcohol interlock sentence.

We will consider including a review of the alcohol interlock sentence in the next Road to Zero Action Plan

- 21 Given that alcohol consumption is a contributing factor to a large number of deaths and serious injuries on our roads, we will consider including a review of the alcohol interlock sentence regime in the next *Road to Zero* Action Plan for 2023 – 2025.
- 22 We have just started work on the development of the 2023 – 2025 *Road to Zero* Action Plan. As outlined in our recent briefing on the Action Plan (OC211004), we propose to seek the approval of the draft Action Plan at the June 2022 *Road to Zero* Ministerial Oversight Group meeting. We will provide you with the draft Action Plan in May 2022.

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22 December 2021

OC211020

Hon Michael Wood**Minister of Transport**

COVID-19 - UPDATE ON DEVELOPMENT OF MIAC EXIT STRATEGY

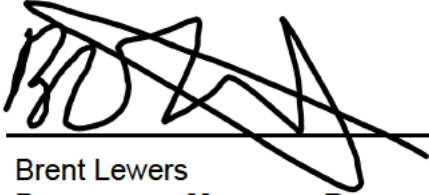
Purpose

The purpose of this briefing is to provide you with an update on the development of the exit strategy for the Maintaining International Air Connectivity (MIAC) scheme. The briefing sets out the work completed to date and provides an overview of the current thinking and options for the development of the exit framework.

Key points

- The Ministry of Transport has developed a Terms of Reference for the MIAC exit strategy work in consultation with the Treasury and the Department of Prime Minister and Cabinet. A range of other agencies are also involved in the development of advice for the exit strategy.
- The Ministry considers that Reconnecting New Zealanders creates a good opportunity to put in place a smooth exit framework from the MIAC scheme. Advice will be provided to Ministers which contains a range of options and trade-offs.
- A key determinant of MIAC exit strategy decisions will be the forecast passenger numbers, based on the Reconnecting New Zealanders strategy. Given the significant uncertainty in timing of Reconnecting New Zealanders, and the further uncertainty in how these decisions will impact passenger travel demand; the Ministry anticipates recommending an exit framework that is capable of managing this uncertainty with exit being determined by actual passenger numbers.

This is a noting briefing and has no recommendations – but please advise us if you wish to discuss further.



Brent Lewers
**Programme Manager, Reconnecting
New Zealanders**
22 / 12 / 2021

Hon Michael Wood
Minister of Transport
..... / /

Minister's office to complete:

- Approved
- Declined
- Seen by Minister
- Not seen by Minister
- Overtaken by events

Comments

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Hayden Berkers <i>Senior Advisor, Transport Connectivity</i>	s 9(2)(a)	

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COVID-19 - UPDATE ON DEVELOPMENT OF MIAC EXIT STRATEGY

Background

- 1 MIAC was established in May 2021, with current MIAC contracts with airlines set to expire on 31 March 2022 (with the exception of the trans-Tasman routes which are funded separately, and currently expire in January 2022¹).
- 2 On 22 September 2021 [DEV-21-MIN-0186], Cabinet invited the Minister of Transport to report back to Cabinet in February 2022 with a strategy for exiting the MIAC scheme, incorporating the Reconnecting New Zealanders approach and forecast traveller scenarios.
- 3 This briefing provides an update on how the exit strategy is being developed, including an overview of key considerations that will frame the exit strategy.

The Ministry has developed a Terms of Reference in consultation with Treasury and DPMC

The Terms of Reference sets out the key path for developing the exit strategy

- 4 In line with Cabinet expectation [DEV-21-MIN-0186], the Ministry of Transport (the Ministry) has developed a Terms of Reference for the MIAC exit strategy. This Terms of Reference has been consulted with the Treasury, the Department of Prime Minister and Cabinet (DMPC) – and was also provided for comment by the Ministry of Foreign Affairs and Trade (MFAT), the Ministry of Business, Innovation, and Employment tourism (MBIE), New Zealand Trade and Enterprise (NZTE), and the Ministry of Primary Industries (MPI).
- 5 The Terms of Reference outline the scope for developing the exit strategy, particularly through the establishment of the problem definition. In particular, the following key settings form the basis for the exit strategy development:
 - Reconnecting New Zealanders will open borders, and that will deliver increased passenger numbers, therefore flights, and freight capacity which can be sold at rates which freight customers can be expected to pay without government support, but not necessarily at pre-COVID levels;
 - Those increased passenger numbers (and the consequences outlined above) will be delivered progressively, over time, with considerable variation between routes; and
 - There is unavoidable uncertainty around the timetable for those border openings and the resultant increased freight capacity.

¹ Note: the Ministry is currently working to gain approval to transfer funding to enable the extension of the trans-Tasman contract in line with the other agreements – this will require Cabinet approval and is the subject of a separate briefing to the Minister of Transport

6 Based on the above, the key problem definition for the exit strategy to solve is stated as: *Given the context above, what is the best framework for exiting the MIAC scheme?*

7 To support this, the Terms of Reference also outline a set of key questions to be answered in the advice to Ministers. These are:

- What is an acceptable minimum level of connectivity? (Note that this should be considered for each route / market)
- What changes could or should be expected from the aviation sector? What are the risks, and where does the risk sit?
- What is the potential impact of a return of widespread passenger travel in the rest of the world on New Zealand's connectivity? In particular, how does the opening of the Australian market impact New Zealand exporters / importers?
- How does seasonality of passenger demand align with export demand?
- Are there other important market considerations which are outside MIAC scheme control / influence?
- Ultimately, what is an appropriate level of government intervention and how and when should the MIAC scheme wind-down?

8 Additionally, the Terms of Reference also outline a range of out-of-scope areas for consideration. These areas generally refer to other support options beyond the MIAC, noting that the intention of the exit strategy development is not to undertake a first-principles review of the MIAC, but to outline the framework within which MIAC support is best turned off.

9

s 9(2)(g)(i)

10

s 9(2)(g)(i)

The Terms of Reference also cover the timeline and expected stakeholder engagement

11 The Terms of Reference provide a clear timeline for the development of the exit strategy. More detail on the timeline and relevant factors is provided at the end of this briefing.

12 There is a wide range of agencies who will be consulted in the development of the exit strategy. Comments from each agency are expected to be included in the final advice provided to Ministers. Additionally, the Ministry will engage, in a limited manner, with industry participants as needed to inform the exit strategy.

13 In line with this approach, the Ministry has already commenced engagement with the key agencies – including through a workshop to provide a base understanding to each agency of the current situation of the MIAC scheme (particularly noting recent trends and projections in the airfreight / air passenger markets). This workshop was also designed to test some early Ministry thinking regarding key considerations of the framework.

14 s 6(a) [Redacted]

Ensuring the exit strategy can respond to complexity and uncertainty is a key focus for the Ministry’s advice

The MIAC scheme has needed flexibility to operate effectively

15 The MIAC has focussed on ensuring a minimum level of airfreight connectivity is maintained with key markets for New Zealand exports and imports. While difficult to objectively determine the Ministry estimates that this level is around 10-20% of pre-COVID flight levels. This is the current level of air freight availability², of which the MIAC scheme is responsible for supporting approximately 50% (the remainder is provided by operators outside of the MIAC scheme).

16 s 9(2)(b)(ii) [Redacted]

[Redacted] As borders are opened and passenger demand increases (passengers provide significantly more revenue to operators), we would expect to see a significant reduction and then elimination in funding required on MIAC routes.

17 s 9(2)(b)(ii) [Redacted]

18 These mechanisms provide a good ability for the MIAC to manage volatile market conditions and ensure that where support remains in place as passenger numbers start to recover, the Crown is not at risk of paying support for flights that are commercially viable.. s 9(2)(b)(ii) [Redacted]

[Redacted] Flight capacity was able to be maintained in the following period when Quarantine Free Travel was suspended.

Passenger recovery will differ across different markets

19 While the MIAC utilises a core set of principles and similar contractual terms across every supported market, each market is highly complex and impacted by its own set

² Note: due to the much lower availability of airfreight, there is currently significantly higher freight rates than pre-COVID – around 2-3 times the pre-COVID prices.

of external factors. In particular, the passenger demand for each market depends on both the New Zealand border settings and dynamics (e.g. willingness to travel) and the border settings and dynamics within the other market.

20 This is likely to lead to significant discrepancies in the return of passenger travel between different markets. For example, given the priority of Australia under the Reconnecting New Zealanders strategy and the significant number of New Zealanders travelling to and from Australia, it is expected that the Australian market will recover rapidly. s 9(2)(g)(i)

21 To ensure that sufficient connectivity is able to be maintained overall, the Ministry considers that decision-making regarding MIAC support arrangements is best made on the individual market basis, rather than at the aggregate level. s 9(2)(g)(i)

This information will be a key consideration in the advice on the exit strategy.

22 s 9(2)(g)(i)

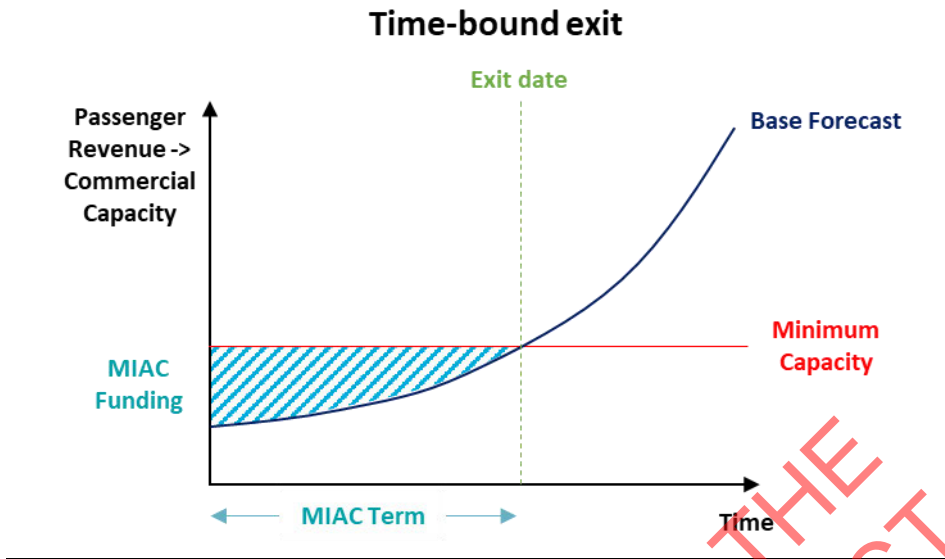
The exit strategy will provide options to Ministers on how to respond to this uncertainty

23 The Ministry's advice on the exit strategy will outline a framework for exiting the MIAC based on the return of passenger revenue. Within this framework, the Ministry's advice will include a range of options to managing risks across the MIAC exit.

24 One key dimension of options within the exit strategy will be whether decisions are based on an exit date or will be 'recovery-driven'. In the absence of a date-based exit strategy, the Ministry will recommend a clear back-stop date, which will allow sufficient time for a further review of MIAC settings and policy objectives. This review will be focussed the management of fiscal risk to the Crown and potential market distortions from long-term government intervention in the air freight market.

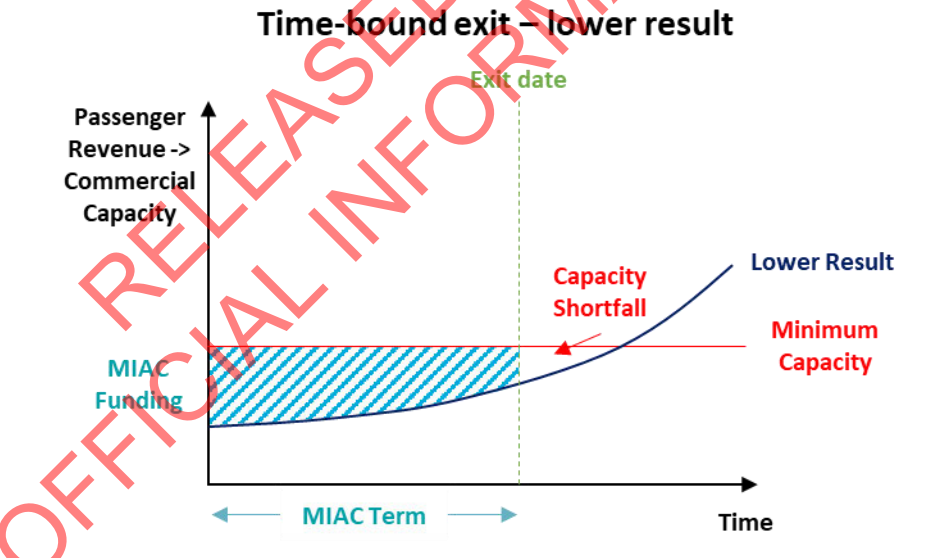
25 To illustrate the potential differences in these approaches, the Ministry has prepared a collection of theoretical diagrams. These diagrams are conceptual only and do not represent the forecast passenger demand other than reflecting the expectation of a general upward trend. For each diagram, the y-axis represents the level of passenger revenue for a market, and therefore also represents the level of commercial airfreight capacity offered. The MIAC currently provides funding (the shaded area) that adds to the commercial capacity to reach a minimum capacity.

Diagram 1: Time-bound exit



26 Under this model, a specified exit date is set at which point MIAC support ceases. The graph above shows that the date aligning perfectly with the increase in passenger revenue / commercial capacity, which means that the exit occurs at exactly the right time. Freight users will see consistent then rising freight capacity, but this is driven by increased passenger numbers so is commercially provided.

Diagram 2: Time-bound exit – passenger growth lower than forecast

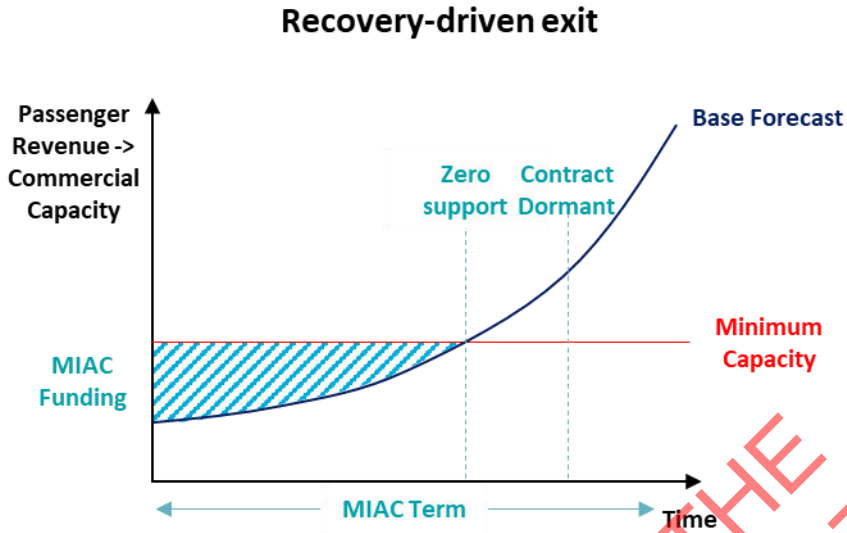


27 As with the previous scenario, an exit date was set ahead of time. However, the passenger recovery eventuated later than the specified exit date.

28 In this instance, there would be expected to be a capacity shortfall until passenger growth crosses over the previously supported minimum level.

29 s 9(2)(b)(ii) [Redacted]

Diagram 3: Recovery-driven exit

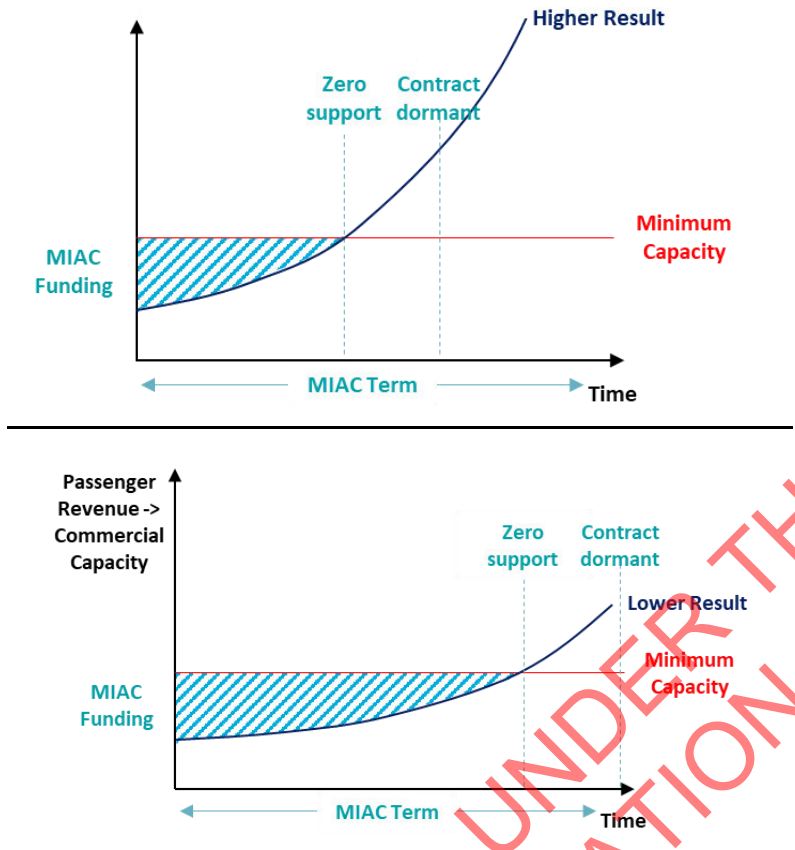


30 In this model, instead of an end date set at the expected point that support can be ceased, a 'recovery-driven' exit model is used. Under this model, the contracts are extended beyond the anticipated date of passenger recovery. s 9(2)(b)(ii)

- s 9(2)(b)(ii)
- s 9(2)(b)(ii)
- s 9(2)(b)(ii)

31 From freight users' point of view, this model will operate in the same way as the time-bound exit model in diagram 1, where the exit date is predicted accurately. Freight users will only consistent then increasing freight capacity, but that increased capacity will be delivered by the market without government support.

Diagram 4 and 5: Recovery-driven exit – passenger growth above and below forecast



32 These diagrams show the impact of different scenarios using the recovery-driven exit model. They show that under this model:

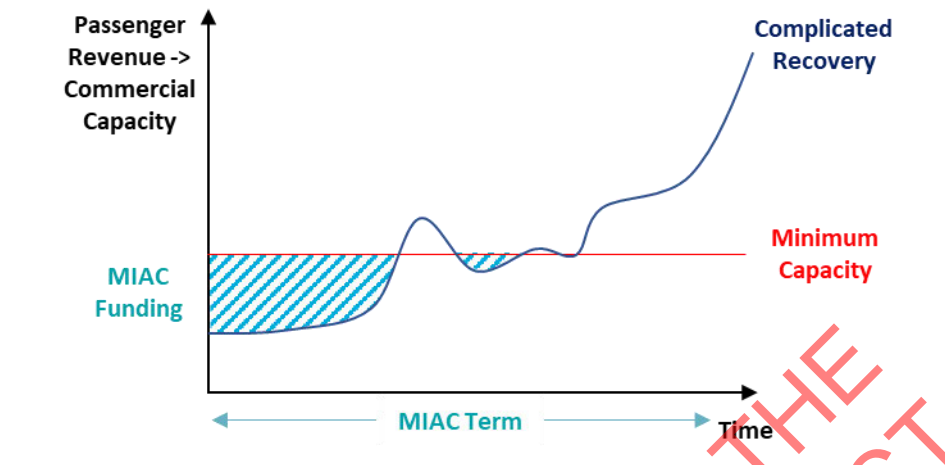
- if passenger recovery happens earlier than expected (top diagram), the government’s payment obligation finishes early, with no unnecessary amount needing to be paid
- if passenger recovery happens later than expected (bottom diagram), the government’s payment obligation continues, increasing the scheme’s cost, but no capacity shortfall arises.

33 s 9(2)(f)(iv) [Redacted]

34 Other considerations for the exit strategy will include how best to manage the agreements in the likely event that passenger demand is not an easy conceptual growth such as outlined above. For example, the actual passenger revenue curve may look something like this:

Diagram 6: Complex passenger revenue

MIAC exit – variable recovery



35 s 9(2)(b)(ii)

36 Overall, the Ministry considers that the development of a suitable exit strategy will be complex and critically will require Ministers to determine the best set of trade-offs, particularly between fiscal cost risk and the risk of sustained capacity shortages.

37 While the Ministry’s advice has yet to be finalised, the expected recommendation will be for an exit strategy that utilises the existing contractual mechanisms to respond to the growth in passenger demand, while remaining flexible to support markets in the event of an uneven recovery. This is effectively the ‘capacity bound’ exit outlined in diagram 3.

38 The Ministry’s recommendations will also include specific measures taken to limit fiscal risk from the MIAC scheme, including a contract end date and review period, which can be targeted at markets that have not yet (or will not) recover in the short-medium term.

Development timeframes are tight

39 The Terms of Reference also outline the timeline for developing the MIAC exit strategy. This timeline is provided in **Appendix 1**.

40 The development timeline is challenging, driven in part by the summer holiday and the need for engagement with the other agencies. This has resulted in the final briefing and cabinet paper being expected to be lodged on 3 March 2022 – which is slightly beyond the Cabinet expectation of February 2022. However, Ministerial consultation is scheduled to occur in late February 2022.

41 This timeline could be reworked to provide the briefing and cabinet paper earlier, however this would mean that the engagement with the agencies would be more limited. As previous reviews of the MIAC scheme have found, this up-front

engagement with the agencies is critical to ensure robust and consistent advice is provided to Ministers representing all relevant interests.

- 42 If the timeline for the development and agreement of the exit strategy is not able to be met, there may need to be a short-term extension of one to two months to the existing MIAC scheme and contracts. In this situation the Ministry will prepare a brief Cabinet paper to seek agreement to the short-term extension.
- 43 It is important to note that if there are significant changes in the settings of Reconnecting New Zealanders, there will be a likely timeline impact on the development of the exit strategy s 9(2)(g)(i)

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Appendix 1


Table 1: Exit strategy development timeline

Activity	Timing	Responsibility
Briefing and Cabinet paper		
Initial workshops with Agencies	Complete	Ministry of Transport
Develop initial draft briefing	w/e 24 Dec	Ministry of Transport
Agency consultation on initial draft	w/e 21 Jan	Public Sector Stakeholders
Develop final draft briefing and Cabinet Paper	w/e 28 Jan	Ministry of Transport
Final comments from Agencies on briefing and Cabinet Paper	w/e 4 Feb	Public Sector Stakeholders
Briefing & draft Cabinet paper provided to Minister of Transport	w/e 11 Feb	Ministry of Transport
Minister advises decision	w/e 18 Feb	Minister of Transport
Updated Cabinet Paper provided to Minister's Office	Contingent on decision	Ministry of Transport
Minister's Office consultation on Cabinet paper	Through to lodging	Minister's Office
Cabinet Paper lodged	3 Mar	Minister's Office
Cabinet Committee	DEV 9 Mar	Minister of Transport
Cabinet decision	14 Mar	Minister of Transport
<i>If required: Extending contracts</i>	14 Mar – end Mar	Ministry of Transport
<i>If required: New contractual period</i>	From 1 Apr	Ministry of Transport

OC220141 – Part Two

29 April 2022



Tēnā koe 

I refer again to your email dated 8 March 2022 requesting the following documents under the Official Information Act 1982 (the Act):

- “OC210813 Road Safety Penalties Review - Proposed recommendations for public consultation*
- OC210991 Further information on North Shore Airport's application for airport authority status*
- OC211007 Rolling Contact Fatigue system issues review- Phase One final report*
- OC210982 Effective Transport Financial Penalties - Update*
- OC220019 Funding reallocation for "Redevelopment of Strategic Roads in the Far North - Ruapekapeka Road"*
- OC211016 Research into the use and effectiveness of alcohol interlocks*
- OC211020 COVID-19 - Update on development of MIAC exit strategy”*

On 4 April 2022 we advised you that due to consultations necessary to make a decision on your request, a proper response could not reasonably be made within the original time limit. We advised you that we were extending the due date on your request by 20 working days, and that a response would be with you by 6 May 2022.

On 11 April 2022 we provided you with a decision on five of the documents in your request and released three to you.

We have now completed the necessary consultations on the remaining two documents and our response is detailed below.

For clarity and completeness, all seven documents within scope of your full request are detailed in the document schedule at Annex 1. The schedule outlines how the documents have been treated under the Act, and notes where the decision was provided as Part One on 11 April 2022.

With regard to the decision on the two remaining documents from your original request, both are released to you with some information withheld under the following sections of the Act:

- 9(2)(a) to protect the privacy of natural persons
- 9(2)(f)(iv) to maintain the constitutional conventions for the time being which protect the confidentiality of advice tendered by Ministers of the Crown and officials
- 9(2)(g)(i) to maintain the effective conduct of public affairs through the free and frank expression of opinions by or between or to Ministers of the Crown or members of an organisation or officers and employees of any public service agency or organisation in the course of their duty.

With regard to the information that has been withheld under section 9 of the Act, I am satisfied that the reasons for withholding the information at this time are not outweighed by public interest considerations that would make it desirable to make the information available.

You have the right to seek an investigation and review of this response by the Ombudsman, in accordance with section 28(3) of the Act. The relevant details can be found on the Ombudsman's website www.ombudsman.parliament.nz

The Ministry publishes our Official Information Act responses and the information contained in our reply to you may be published on the Ministry website. Before publishing we will remove any personal or identifiable information.

Nāku noa, nā



Hilary Penman
Manager, Ministerial Services

Annex 1 - Document Schedule

Doc#	Reference number	Title of Document	Decision on request
1	OC210813	Road Safety Penalties Review – Proposed recommendations for public consultation	Responded to in Part One
2	OC210991	Further Information on North Shore Airport's application for airport authority status	Responded to in Part One
3	OC211007	Rolling Contact Fatigue System Issues Review – Phase One final report	Responded to in Part One
4	OC210982	Effective Transport Financial Penalties – Update	Some information is withheld under Sections 9(2)(a), 9(2)(f)(iv) and 9(2)(g)(i)
5	OC220019	Funding reallocation for “Redevelopment of Strategic Roads in the Far North – Ruapekapeka Road”	Some information is withheld under Section 9(2)(a)
6	OC211016	Research into the use and effectiveness of alcohol interlocks	Responded to in Part One
7	OC211020	COVID-19 – Update on development of MIAC exit strategy	Responded to in Part One

21 December 2021

OC210982

Hon Michael Wood
Minister of Transport

Action required by:
 15 February 2022

EFFECTIVE TRANSPORT FINANCIAL PENALTIES – UPDATE

Purpose

To provide you with updated information on the Effective Financial Penalties Policy Framework (the Framework) and Categorisation Tool (the Tool) and its use.

To provide you with a set of talking points to discuss the Framework and Tool with your Cabinet colleagues.

Key points

- We have previously engaged with you on the Framework and Tool [OC210050 and OC210414 refers].
- Financial penalties are just one enforcement option as part of a risk-based, responsive, and flexible regulatory system. The Framework and Tool enables consistency and fairness across all transport modes when a financial penalty is pursued.
- We have made further refinements to the Tool since you last saw it. We have added more nuanced categories for lower-level penalties to respond more sensitively to the large number of low-level land transport (traffic) offences.
- We have used the Framework and Tool to inform proposed penalty levels for some offences in the aviation, maritime and land contexts. We consider that this approach has proven effective in proposing more consistent, fit-for-purpose penalty levels.
- s 9(2)(f)(iv) [REDACTED]
- We recommend releasing the Framework and Tool on the Ministry's website s 9(2)(f)(iv) [REDACTED]. While there are some risks associated with releasing these documents, it will help the wider transport sector, government agencies, and interested members of the public understand the rationale behind adjusting transport financial penalties.
- We invite you to discuss the Framework and Tool with your Cabinet colleagues.

Recommendations

We recommend you:

- 1 **agree** to the Framework and Tool being publicly released on the Ministry's website
s 9(2)(f)(iv) Yes / No
- 2 **consider** discussing the Framework and Tool with your Cabinet colleagues. Yes / No



 Megan Moffet
 Manager Regulatory Policy
 .21 / .12. / 2021

 Hon Michael Wood
 Minister of Transport
 / /

- Minister's office to complete:**
- Approved Declined
 - Seen by Minister Not seen by Minister
 - Overtaken by events

Comments

Contacts

Name	Telephone	First contact
Megan Moffet, Manager Regulatory Policy	s 9(2)(a) 	✓
Emma Bray, Adviser	s 9(2)(a) 	

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EFFECTIVE TRANSPORT FINANCIAL PENALTIES – UPDATE

We have previously engaged with you on the Effective Financial Penalties Policy Framework and Categorisation Tool

1. We first provided you with a draft of the Effective Financial Penalties Policy Framework (the Framework) and Categorisation Tool (the Tool) in March 2021 [OC210050 refers]. We addressed further questions you had on transport related penalties in July 2021 [OC210414 refers].
2. We have since made a small amendment to the penalties categories outlined in the Tool to provide more scope for appropriate penalties for lower-level land transport (traffic) offences.

Financial penalties support a safe and effective transport system, but many are inconsistent, disproportionate, or otherwise unfit-for purpose

3. To help ensure a safe and effective transport system, participants need to follow the requirements set in legislation that establish that system.
4. Regulators have a broad range of tools and approaches – from education and awareness to licence revocation and prosecution – to use in designing a risk-based, responsive, and flexible transport regulatory system to support compliance and respond to offending. Regulatory and enforcement agencies also have wide discretion in applying enforcement approaches and associated penalties.
5. Financial penalties (infringement fees and maximum fines before a court) are a specific intervention tool. They support the system by encouraging positive and responding to negative behaviour (particularly of a more serious nature). Infringement fees in particular provide an intermediate step between education and prosecution that allow regulatory agencies more discretion in their enforcement approaches.
6. We have identified various issues with the process by which financial penalties across transport legislation have been developed and maintained. This has included:
 - Isolated, arbitrary development
 - Lack of review to ensure currency
7. These process issues have led to problems that reduce the effectiveness of transport-related financial penalties, including:
 - Inconsistency across legislation
 - Disproportionality to level and risk of harm
 - Inappropriate penalty levels for different offender types

To address these problems, we have developed the Framework and Tool

8. The Framework and Tool provide the Ministry with a systematic approach to address problems with financial penalties across the transport system. The Framework has undergone a comprehensive policy development process over more than two years.

9. The Framework supports reviewing existing, and setting new, financial penalties in transport legislation. It enables penalties that are better aligned to levels of harm and more consistent across transport modes, as well as with other relevant, modern, regulatory regimes. The Framework involves a process to determine financial penalty levels based on considering four effectiveness principles.
10. We have provided you with detail about the framework previously [OC210050 refers], and a high-level outline is contained in Annex 1.

The Framework and Tool will help ensure consistency and fairness when a financial penalty is pursued

11. The Framework and Tool support a regulatory stewardship approach focussed on supporting more effective financial penalties. When considering a piece of work, the Ministry may determine, after weighing up all possible enforcement options, that a financial penalty is the best option to pursue. If this is the case then the Framework and Tool guide penalty setting and ensure the determined financial penalty is proportionate, consistent, and better targeted to address specific offending and groups of offenders.
12. The eventual long-term outcome will be that every financial penalty in the transport regulatory system will have a common connecting factor and be consistent across all transport modes. This is in line with the Ministry's stewardship role.

We have made further refinements to the Tool since you last saw it

13. We have designed the Tool to support the Ministry and transport regulatory agencies to effectively implement the Framework. The Tool outlines a stepped process to categorise financial penalties according to the Framework's principles.
14. We have added in more nuanced categories (see 1A, 1B, 2A and 2B in Table 1 below) for lower-level penalties to respond more sensitively to the large number of low-level offences in the land transport regime. These categories recognise that traffic offences make up the bulk of all transport penalties and are also mostly committed by individuals. Consequently, relatively small penalty level variations can have large impacts on how the penalties are viewed by the public, enforced, and the social consequences that can result from unpaid penalties.

Table 1: Penalty scale for harm and types of offenders

Harm category	Fee			Fine		
	Individual	Special Reg Ind ¹	Business or undertaking	Individual	Special Reg Ind	Business or undertaking
1A	\$50	\$150	\$500	\$250	\$750	\$2,500
1B – new	\$150	\$450	\$1,500	\$750	\$2,250	\$7,500
2A	\$250	\$750	\$2,500	\$1,250	\$3,750	\$12,500
2B – new	\$350	\$1,050	\$3,500	\$1,750	\$5,250	\$17,500
3	\$500	\$1,500	\$5,000	\$2,500	\$7,500	\$25,000
4	\$700	\$2,100 ²	\$7,000	\$3,500	\$10,500 ³	\$35,000
5	\$1,000	\$3,000 ²	\$10,000	\$5,000	\$15,000 ³	\$50,000
6	N/A	N/A	N/A	\$10,000	\$30,000	\$100,000
7	N/A	N/A	N/A	\$20,000	\$60,000	\$200,000
8	N/A	N/A	N/A	\$30,000	\$90,000	\$300,000
9	N/A	N/A	N/A	\$50,000	\$150,000	\$1,500,000
10	N/A	N/A	N/A	\$60,000	\$180,000	\$3,000,000

We have used the Framework and Tool to inform proposed penalty levels for offences

15. We have already used the Framework and Tool to inform proposed penalty levels for some serious offences in the Civil Aviation Bill and a series of lower-level offences in civil aviation, and similar serious and lower-level offences in the maritime area. The Framework and Tool have also been used, alongside other considerations, to inform proposed penalty levels in the Road Safety Penalties review (OC210813 refers).
16. We consider that the Framework and Tool's approach has been effective in proposing more consistent, up-to-date, and fit-for-purpose penalties. This has included some significant proposed penalty level changes.

¹ Special Regulated Individual.

² Note this penalty level is above maximum amounts currently allowed in transport regulations for fees, with limits of \$2000 (individual) and \$12,000 (body corporate). Therefore, the lesser limits will apply.

³ Note this penalty level is above maximum amounts currently allowed in transport regulations for fines, with limits of \$10,000 (individual) and \$50,000 (body corporate). Therefore, the lesser limits will apply.

17. For example, using the Tool to guide penalty levels in reviewing some offences in regulations has led to penalty proposals up to seven times current levels,⁴ and some lowered penalties. Proposals for increased or lowered penalties may result where, for example, penalties have not been reviewed for decades or are currently disproportionate to likely harm.

We plan to consult on proposed penalty changes in 2022, initially maritime and marine protection penalties

18. We have used the Framework and Tool to assess a small selection of penalties in the Maritime Transport Act, and a wider suite of offences in the maritime and marine protection regulations. The proposed penalty adjustments will address the differing levels of financial penalties under the *Maritime Transport Act 1994* compared to the *Health and Safety at Work Act 2015* (HSWA) and modernise our approach to a range of penalties for offences that generally apply to large and/or international shipping vessels.
19. s 9(2)(f)(iv) [REDACTED]
20. s 9(2)(f)(iv) [REDACTED]
We have also proposed to consult on the Road Safety Penalties review later in 2022, subject to your agreement [OC210813 refers]
21. The Framework and Tool will be clearly referenced s 9(2)(f)(iv) [REDACTED] to explain how and why some financial penalties are being proposed for adjustment.

We recommend releasing the Framework and Tool on the Ministry's website and invite you to discuss them with your Cabinet colleagues

22. We recommend publicly releasing the Framework and Tool as documents on the Ministry's website s 9(2)(f)(iv) [REDACTED], so they are available to the wider transport sector, other government agencies, and interested members of the public. This is an important step to set out our operational policy informing how and why we set fees and fines, 'socialising' it, and supporting effective implementation of the Framework and Tool.
23. s 9(2)(g)(i) [REDACTED]

⁴ For example, there is a \$100 fee for using a craft where there is a safety risk to persons on board (such as in rough seas, adverse weather, or emergencies), without every person wearing a properly secured personal flotation device - Maritime (Offences) Regulations, Rule Part 91.4(6). Due to this offence's high safety risk, using the Tool's assessment process recommended a \$700 fee.

24. s 9(2)(g)(i) [REDACTED]
25. We do not consider that these risks override the benefits of publication. This is because the Framework provides a strong process to actually fix problems with financial penalties in the transport system, and we intend to address these problems by reviewing penalty levels across transport legislation.
26. We will also develop communications messages for release of the Framework and Tool. This material will emphasise their objectives and benefits to mitigate publication and implementation risks.
27. You have previously mentioned you would like to discuss the Framework and Tool with your Cabinet colleagues before the Ministry publicly releases the documents. We invite you to take the Framework and Tool to your Cabinet colleagues and have attached talking points to this briefing to help aid your discussions (ANNEX 1).

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ANNEX 1

Talking Points to use in discussions with your Cabinet Colleagues

1. Financial penalties (infringement fees and fines) are important tools to support the transport system, as they can encourage compliance and respond to negative behaviour.
2. To be effective, financial penalties need to be up-to-date, consistent, proportionate to harm and fit-for-purpose.
3. Current penalty levels across transport legislation are inconsistent, were developed arbitrarily and in isolation, and are often disproportionate to their severity and risk of harm.
4. The Ministry has developed the Effective Financial Penalties Policy Framework (the Framework) and Categorisation Tool (the Tool) to help ensure financial penalties across all transport modes are proportionate, consistent, and better targeted to address particular offending and groups of offenders

The Framework

5. The Framework has four principles for determining effective financial penalties. The financial penalty needs to:
 - respond to the offence's severity
 - act as a deterrent to undesirable behaviour
 - be proportionate
 - consider the responsibilities and financial capacity of the person or entity in the system
6. The Framework assesses offences' severity by considering three types of possible harm:
 - *System* – harm to the transport regulatory system itself from breaching any transport requirements or rules.
 - *Safety* – actual harm, or risk of harm, to people.
 - *Environmental and property* - actual harm, or risk of harm, to the environment or property
7. The Framework identifies two new categories of potential offenders that penalties can apply to:
 - *Special regulated individuals (SRIs)* – commonly individuals with professional responsibilities in the transport system
 - *Businesses or undertakings (BUs)* – commercial operators or not-for-profit organisations

The Tool

8. We have designed the Tool to support the Ministry and transport regulatory agencies to effectively implement the Framework. The Tool outlines a stepped process to:

- categorise financial penalties according to the Framework principles
 - assign penalty levels by points
9. The Tool's categorisation process links recommended penalty amounts to:
- severity of harm
 - likelihood of harm occurring should the offence occur
 - types of potential offenders (individuals, SRIs, BUs)
10. The Tool would bring transport penalty levels, if reviewed and with legislative amendments, up to HSWA levels for comparable offending which occurs in the transport system. This would, for example, enable better addressing serious offending by large commercial entities.

Consideration of public policy contextual factors

11. The Framework supports an objective, logical approach to set consistent and fit-for-purpose transport related financial penalties. However, it also allows penalties to reflect wider public policy context where necessary.
12. The Tool guides users through a staged process to propose penalty levels that respond to an offence's severity, are a deterrent, are proportionate, and applicable to either 'regular' individuals, SRIs, or BU. Following that process, the Framework and Tool propose that any broader public policy contextual factors, where relevant, are considered to inform the final proposed penalty levels.
13. These may be factors relevant to the transport sector or wider society. For example, this might include the most likely type of offenders (such as vulnerable population groups) and the underlying causes of their offending.
14. Financial penalties are just one enforcement approach the Ministry can use to encourage compliance and respond to negative behaviour. The Ministry assesses all options before deciding to pursue a financial penalty. If the Ministry determines a financial penalty is the best option, then the Framework and Tool should be used to guide penalty setting



MINISTRY OF BUSINESS,
INNOVATION & EMPLOYMENT
HĪKINA WHAKATUTUKI



Kānoa
Regional Economic Development
& Investment Unit

BRIEFING

Funding reallocation for “Redevelopment of Strategic Roads in the Far North - Ruapekapeka Road”

Date:	21 December 2021	Priority:	Medium
Security classification:	In Confidence	Tracking number:	2122-2006
Action sought			
	Action sought	Deadline	
Hon Stuart Nash Minister for Economic and Regional Development	Agree to transfer \$1.0 million within appropriation for Far North District Council local road projects; from Priority 1 Routes project to Ruapekapeka Road project. Agree a minor contract variation for Ruapekapeka Road out to 30 April 2021.	21 January 2022	
Hon Michael Wood Minister of Transport			
Hon Grant Robertson Minister of Finance			
Contact for telephone discussion (if required)			
Name	Position	Telephone	1st contact
Mark Jacobs	Director Regional Development	s 9(2)(a)	✓
Tony Frost	Principal Advisor, Programme Assurance and Commercial	s 9(2)(a)	
The following departments/agencies have been consulted			
Far North District Council, NZTA Waka Kotahi, Ministry of Transport.			

Minister's office to complete:

Approved

Declined

Noted

Needs change

Seen

Overtaken by Events

See Minister's Notes

Withdrawn

Comments:

BRIEFING

Funding reallocation for “Redevelopment of Strategic Roads in the Far North - Ruapekapeka Road”

Date:	21 December 2021	Priority:	Medium
Security classification:	In Confidence	Tracking number:	2122-2006

Purpose

This joint paper with Ministry of Transport (MoT) seeks agreement to reallocate \$1.0 million within appropriation between Far North District Council (FNDC) local road upgrade projects; from Redevelopment of Strategic Roads in the Far North, Priority 1 Routes Required for Economic Development, to Ruapekapeka Road.

Additionally, approval is sought to extend the end date for Ruapekapeka Road out to 30 April 2022.

Executive summary

As part of the COVID-19 reset, on 4 June 2020 Regional Economic Development (RED) Ministers approved Provincial Growth Fund (PGF) funding of \$20.7 million for two Far North District Council (FNDC) Local Road Upgrade projects:

- \$14.2 million for Redevelopment of Strategic Roads in the Far North – Priority 1 Routes Required for Economic Development, and
- \$6.5 million for Redevelopment of Strategic Roads in the Far North – Ruapekapeka Road.

\$0.5 million was paid to FNDC directly from the Provincial Development Unit (PDU), now Kānoa-Regional Economic Development & Investment Unit (RDU), in July 2020. The remaining \$20.2 million was transferred to Vote Transport in August 2020 for distribution provided through the NZ Transport Agency Waka Kotahi (Waka Kotahi) system.

When the budgets for the projects were estimated, there were a number of unknown factors to be clarified in the ‘detailed design stage’ through a robust design and value engineering process. This process has now confirmed that:

- Priority 1 Routes project has \$1.0 million of cost savings. This saving arose after thorough analysis, testing and assessment of 21 bridges determined that only eight of these bridges require strengthening to meet HPMV loading capacity.
- The Ruapekapeka Road project exceeds the budget allocation by \$1.0 million for completion. This is due to additional consenting requirements for road alignment and safety-in-design considerations, geotechnical challenges, and complexities in the environment including the archaeological significance of the area. The final estimated cost is \$7.5 million.

Additional funding is not necessary as there is scope to transfer funds within appropriation to allow up to \$1.0 million of the Priority 1 Routes project be re-applied to the Ruapekapeka Road project. MoT has authority to reallocate funds up to \$1.0 million within existing appropriations, however, this authority does not include the Enabling Infrastructure Projects category of the Tuawhenua

Provincial Growth Fund – Transport Projects Multi Category Appropriation, and therefore your approval is sought [Briefing OC200898 refers].

Reprioritisation of funding for the projects was considered by Kānoa-RDU. However, this option is not preferred as the Ruapekapeka Road Project is important to connectivity within the district and safeguards access to Ruapekapeka Pā, an iconic site of historic and cultural significance in New Zealand.

Reallocation of \$1.0 million available funds within existing appropriations and budget will deliver a positive outcome with both projects completed to initially agreed scope, expected outcomes and projected benefits. Reallocation also secures delivery of the full \$20.7 million budget as originally allocated for FNDC Local Road Upgrade Projects.

Recommended action

We recommend you:

- a **Note** funding of \$20.7 million from the PGF was approved by RED Ministers for two Far North District Council Local road upgrade projects on 4 June 2020; Ruapekapeka Road and Priority 1 Routes Required for Economic Development. *Noted*
- b **Note** that the Far North District Council local road upgrade projects has a:
- i. final estimated cost of \$1.0 million above budget for Ruapekapeka Road project completion, and
 - ii. cost saving of \$1.0 million for the Priority 1 Routes Required for Economic Development project. *Noted*
- c **Note** allocating up to \$1.0 million to the Ruapekapeka Road project from Priority 1 Routes Required for Economic Development will not impact on overall appropriations or local road deliverables. *Noted*
- d **Note** that Ministry of Transport has authority to reallocate funds up to \$1.0 million within existing appropriations, however, this authority does not include the Enabling Infrastructure Projects category of the Tuawhenua Provincial Growth Fund – Transport Projects Multi Category Appropriation, therefore your approval is sought. [Briefing OC200898 refers]. *Noted*
- e **Note** all residual funding will be returned to Vote BSI. *Noted*
- f **Agree** to one of the following options available to complete the Ruapekapeka Road project:
- i. Option One - Agree to the reallocation of \$1.0 million PGF funding from 'Priority 1 Routes' to 'Ruapekapeka Road' to deliver within budget and appropriation, including a contract extension out to 30 April 2022 [**preferred option**]. *Agree/ Disagree*
 - ii. Option Two - Rescope the Ruapekapeka road to minimum viable delivery. *Agree/ Disagree*

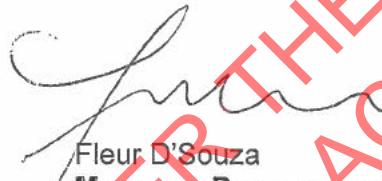
- g **Note** Option Two to rescope the Ruapekapeka Road project would sacrifice overarching outcomes beyond what is acceptable for environmental protection, safety and capacity of the road, and accessibility.

Noted



Robert Pigou
**Deputy Chief Executive and Head of Kānoa-
RDU**
MBIE

21 / 12 / 2021



Fleur D'Souza
**Manager, Programme Assurance and
Commercial**
Ministry of Transport

21/12/2021

Hon Stuart Nash
**Minister for Economic and Regional
Development**

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Hon Michael Wood
Minister of Transport

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Hon Grant Robertson
Minister of Finance

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Background

1. On 4 June 2020, RED Ministers approved \$20.7 million of Provincial Growth Fund (PGF) funding to redevelop strategic roads in the far north as part of the COVID-19 reset.
2. RED Ministers agreed that these projects with Far North District Council (FNDC) would be delivered as:
 - a. \$14.2 million for Priority 1 Routes Required for Economic Development, to provide an alternative safe and resilient route suitable for Heavy Commercial Vehicles (HCVs) and High Productivity Motor Vehicles (HPMV) from SH15 south of Kaikohe, to an upgraded rail hub at Otiria, Moerewa via Ngapipito Road and SH1 Otiria Road, and
 - b. \$6.5 million for Ruapekapeka Road, “to widen and seal 4.7 km of Ruapekapeka Road from SH1 at Towai to the Ruapekapeka Pā Battle Memorial site. This includes drainage improvements, shape corrections and corner improvements, bridge strengthening or replacement of the single lane bridge”.
3. \$0.5 million was paid directly to FNDC: \$0.35 million for Priority 1 Routes and \$0.15 million for Ruapekapeka. \$20.2 million was transferred from Vote Business, Science and Innovation (BSI) to Vote Transport ‘Enabling Infrastructure Projects’ appropriation in August 2020 to be distributed through Waka Kotahi system and assurances.
4. When the project budgets were estimated, there were a number of unknown factors to be clarified. The detailed design was peer reviewed over the 2021 winter season with value engineering opportunities investigated for both projects. This confirmed cost savings of \$1.0 million for Priority 1 Routes and Ruapekapeka Road exceeding its budget by \$1.0 million.
5. The Ministry of Transport has authority to reallocate funds up to \$1.0 million within existing appropriations however, this authority does not include the Enabling Infrastructure Projects category of the Tuawhenua Provincial Growth Fund – Transport Projects Multi Category Appropriation, and therefore your approval is sought [Briefing OC200898 refers].
6. Project information for Ruapekapeka Road and Priority 1 Routes is at Annex 1.

Current state

7. FNDC has requested a transfer of funding from Priority 1 Routes to Ruapekapeka Road following the results of the design and value engineering process which confirmed:

Priority 1 Routes

8. \$1.0 million in cost savings for Priority 1 Routes after thorough analysis, testing, and assessment of 21 bridges that were candidates for strengthening to meet High Productivity Motor Vehicles (HPMV) loading capacity. This confirmed that only eight of the bridges required strengthening.

Ruapekapeka Road

9. The final estimated cost to complete the project is \$7.5 million which exceeds the budget allocation by \$1.0 million. This is due to additional consenting requirements for road alignment and safety in design considerations, geotechnical challenges and complexities in the environment including the archaeological significance of the area.
10. A number of key items have been identified as requiring special attention in the Ruapekapeka Road Project including;

- a. The design of retaining wall structures below the Pā site to accommodate two traffic lanes at this narrow section of the road,
 - b. A 'permeable pavement' design at Monument Road intersection to protect the root system of old puriri trees,
 - c. The SH1 intersection design requires realignment of an existing stream, undergrounding the existing overhead power lines and incorporating the location of the new Pou, and
 - d. A significant volume of earthworks is scheduled to enable the construction of a safe, two lane sealed road capable of carrying heavy traffic, including for example tourist buses.
11. These additional works will:
- a. improving visitor experience to the Pā, building on existing investment at the Pā ;
 - b. improving the safety of the road for local and visitor users;
 - c. reducing the dust created from dirt roads which can have negative health impacts on those living near the road, and
 - d. further encourage tourist visitors to this site of national and historic significance, by providing a safe, sealed road access.

Options to manage cost-overruns

12. The additional funding required for Ruapekapeka Road can be managed through the reallocation of funding from the Priority 1 Routes to the Ruapekapeka Road project. The reallocation of funding will deliver a positive outcome, with both projects completed to initially agreed scope, expected outcomes and projected benefits (BR 3476 19-20) and secure delivery of the full \$20.7 million budget as originally allocated for FNDC Local Road Upgrade Projects
13. Agencies consider there are two options to manage the Ruapekapeka delivery:
 - a. **Option One** - Agree the transfer of funds between FNDC local road upgrade projects Priority 1 Routes and Ruapekapeka road to deliver revised scope resulting in expected and additional project outcomes **[preferred option]**
 - b. **Option Two** - Rescope the Ruapekapeka road to minimum viable delivery.
14. Option One is the preferred approach as rescoping and reprioritising at a critical stage means sacrificing overarching outcomes for Ruapekapeka Road, beyond what is acceptable for environmental protection, safety and capacity of the road, and accessibility for the future. This option will result in a one-month extension, from March 2022 to April 2022.
15. Waka Kotahi supports transferring funding for the Ruapekapeka Road project. Waka Kotahi works in tandem with FNDC and Hoskin Civil as part of a local initiative to assist with leading the delivery of projects, as the project includes SH1 intersection improvements. All parties have carried out extensive liaison and consultation, particularly with Ngati Hine, Ngati Manu, Te Kapiti, Ngati Hau and the local hapū trustees of the nearby DoC historic site. Personnel from Waka Kotahi Safety Network Operations and Project Delivery have also been involved delivery discussions where the delivery mechanism for these projects is under the NZTA Northland Delivery Framework (NDF).

Next steps

16. If you agree to the transfer of funds within appropriation, the transfer of \$1.0 million will be actioned by Ministry of Transport through the Waka Kotahi system and the variation including updated delivery timeline will be executed by Kānoa-RDU.

Annex

Annex One: Project Information for Ruapekapeka Road and Priority 1 Routes

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Annex One: Project Information for Ruapekapeka Road and Priority 1 Routes

Ruapekapeka Road

1. The Ruapekapeka Road project addresses a significant resilience and access gap on nationally significant social and economic connections including access to one of New Zealand's iconic historic heritage sites. The project is approved to complete:
 - a. Widening and sealing 4.7km including drainage improvements, road shape correction and corner improvements, and
 - b. Bridge strengthening or replacements of the single lane bridge at the southern end.
2. Ruapekapeka Pā is one of Northland's most historically significant pā sites, and the best-preserved Land War battlefield, with features remaining visible on the surface. The palisaded, trenched, and tunnelled hilltop is the site of the last battle (and first major armed conflict) of the Northern Wars. It is considered a significant site of Māori military engineering.
3. The Pā is governed by the Te Ruapekapeka Pā Management Trust. The Trust has undertaken a number of PGF-funded improvements to the wayfinding and informational signage in and around the locale, in an effort to increase visitor numbers to the Pā. Improvements will lead to increased visitor numbers in future years. However, the access road to the Pā (Ruapekapeka Road) was considered dangerous and not fit for purpose.
4. The project had a higher cost and risk compared to other unsealed road projects due to its complex geography and its rich archaeology. This risk materialised when unforeseen delays with consenting and archaeological authority requirements affected the project programme impacted the start of scheduled earthworks and drainage.
5. Ruapekapeka Road is often used as a diversion route, which means it needs to have the capability to accommodate large trucks and traffic volumes.

Priority 1 Routes

6. The Priority 1 Routes project will upgrade two routes to be suitable for High Productivity Motor Vehicles (HPMV) and Heavy Commercial Vehicles (HCV), which will create operating efficiencies, improve route security and provide safer access:
 - a. South of Kaikohe, along Ngapitopito Road from State Highway 15 to Otiria Road and the Otiria rail head and freight hub; achieved through:
 - i. Widening and sealing 5km of unsealed road on Ngapipito Road, including drainage improvements, road shape correction and corner improvements,
 - ii. Minor works to some sealed sections of Ngapipito and Otiria Roads, including water tables, signage, and guardrails, and
 - iii. Intersection improvements at each end of Ngapipito road.
 - b. South of Kaitaia, from State Highway 1 at Pamapurua to State Highway 10 at Taipa; achieved through:
 - i. Widening and sealing the 6.3km unsealed section of Peria Road, including drainage improvements, road shape correction, and corner improvements,
 - ii. Bridge strengthening or replacement of seven bridges,
 - iii. Two slip repairs, and
 - iv. Safety improvements at the intersections of State Highway 1/Fairburn Road and State Highway 10/Oruru Road