ADVICE ON THE RAIL NETWORK INVESTMENT PROGRAMME

Purpose

To provide you with the Waka Kotahi advice on the Rail Network Investment Programme (RNIP)
as required under section 22C and 22G of the LTMA to inform your decision whether to approve
the RNIP under s22B and NLTF for rail activities contained in the RNIP under s22F.

Section 1: Background and context

Strategic context for heavy rail investment

- 2. Changes to the Land Transport Management Act 2003 (LTMA) came into effect on 1 July 2020 setting out a long-term planning and funding framework for rail activities. The purpose of the new framework is to provide KiwiRail with a greater level of long-term funding certainty and partially integrate the rail network into the planning and funding framework established in the Land Transport Management Act 2003 (LTMA). From 1 July 2021, KiwiRail will be able to directly access the National Land Transport Fund (NLTF) for delivery of rail network activities. Funding from the NLTF will be supplemented by the Crown and through Track User Charges.
- 3. The New Zealand Rail Plan (Rail Plan) sets out the strategic investment priorities for New Zealand's rail network and informs the development of the detailed investment programme. The key focus of the Rail Plan is delivering a 'resilient and reliable' rail network. The RNIP sets out the activities that KiwiRail intend to deliver over the following three years, the amount of funding required from the NLTF for delivery, and a 10-year financial forecast.
- 4. The Rail Plan sets out the following strategic priorities to guide investment in the rail network over the next decade:
 - investing in the national rail network to restore rail freight and provide a platform for future investments for growth
 - investing in metropolitan rail to support growth and productivity in our largest cities.
- 5. The 2021-24 Government Policy Statement on Land Transport Funding (GPS) identifies the Rail Plan as one of four Government commitments that the Government expects to be met in National Land Transport Programmes (NLTP).

RNIP Roles and Responsibilities

Minister of Transport

- 6. As the Minister of Transport, your role is to approve or reject the RNIP (Section 22B of the LTMA) and approve or reject NLTF contributions for individual activities (Section 22F of the LTMA). Before you make this decision, you are required to:
 - consult with KiwiRail's shareholding Ministers (Hon Grant Robertson, Minister of Finance and Hon David Clark, Minister of State-Owned Enterprises)
 - consider the advice provided by Waka Kotahi under Section 22C and Section 22G.

Central and local government entities roles and responsibilities

- 7. Various entities have roles and responsibilities in the process of preparing, assessing and implementing the RNIP.
 - KiwiRail prepares the RNIP, submits it for your approval, requests NLTF for rail activities in the RNIP and implements the approved programme.
 - Waka Kotahi provides you with advice and recommendations on whether you should approve the RNIP and NLTF for rail activities contained in the RNIP. Waka Kotahi also monitors and reports to you annually on the delivery of the RNIP, the RNIP's contribution to the purpose of the LTMA and consistency with the Government Policy Statement on Land Transport (GPS).
 - the Ministry of Transport (the Ministry) for preparing the Rail Plan and GPS to give effect to the Government's strategic transport priorities
 - the Treasury monitors KiwiRail's performance as a State-Owned Enterprise.
 - Auckland Transport (AT) and Greater Wellington Regional Council (GWRC) are responsible
 for working with KiwiRail on the metro network activities required to support the delivery of
 metro rail services.

Assessment process

- 8. We are responsible for preparing the National Land Transport Programme (NLTP) and making decisions about which activities should receive NLTF contributions. We have leveraged our internal NLTP expertise to inform our assessment of the RNIP and ensure consistency (as far as possible) with how activities are assessed for inclusion in the NLTP.
- 9. We have supplemented this internal expertise by contracting an external expert in the rail network to inform our assessment. The external review was focused on several matters we consider to be important to an assessment including evaluating the robustness of KiwiRail's costing methodologies, how KiwiRail prioritises work, its asset management planning processes and ability to deliver. The findings of the internal and external reviews are detailed in Section Two of this report.
- 10. To provide KiwiRail with the best opportunity to deliver the RNIP, it is important for funding to begin flowing as soon as possible on, or after 1 July 2021. To support this, we have taken a pragmatic approach to our assessment. We have focused on assessing whether KiwiRail's processes and methodologies are robust, rather than expecting it to have fully developed plans (for example, asset management planning). Over time, we will work with KiwiRail to deepen our understanding of its planning framework and refine our assessment approach.

Section 2: Advice on the Rail Network Investment Programme (Section 22C)

- 11. Section 22C of the LTMA requires Waka Kotahi to provide you with advice on the RNIP at a programme level, as well as advising whether you should approve the RNIP. Under section 22C we are required to consider whether the RNIP:
 - i. contributes to the purpose of the LTMA (to contribute to a safe, efficient and effective land transport system)
 - ii. is consistent with the Government Policy Statement on land transport
 - iii. takes into account any relevant regional land transport plan (RLTP).

12. It is important to note that the 10-year financial forecast included in the RNIP is based on information currently available and is subject to change. There are likely to be changes to future costs as KiwiRail gains a better understanding of the condition of its assets, completes detailed business case work for specific activities, and obtains greater certainty on the ongoing operating and maintenance costs for large projects such as Rail Network Growth Impact Management. There are also a range of other projects and programmes that have been funded directly by Government are therefore unable to be included in the RNIP. These may also impact on the future forecasts depending on decisions taken by the Government, for example CRL or NZUP. Any increases in long term funding requirements will be signalled through future forecasting.

Contribution to the purpose of the LTMA

- 13. Our assessment of the RNIP concludes that the activities contained in the RNIP will contribute to an effective, efficient, and safe land transport system in the public interest through restoring the rail network to a resilient and reliable state. We consider that the proposed investments will:
 - support mode shift that reduces pressure on the wider land transport network
 - improve the movement of people in our largest metro centres in an efficient and effective way.
- 14. The programme proposed in this RNIP represents a necessary first step towards achieving a resilient and reliable rail network and is mainly focused on addressing the consequences of historic underinvestment in the freight network outside Auckland and Wellington. The short run benefits include improved safety on the rail network and progressive improvement in reliability of services (through reduced outages and speed restrictions). These improvements will over time make rail a more attractive freight option.
- 15. The rail activities proposed for the metro networks in Auckland primarily support the delivery of increased services and capacity when the City Rail Link becomes operational. In Wellington the focus is on completing renewal of the metro network with the last major activity being the renewal of the signalling system to support a safer network and more flexible operations. A business case only is proposed for this RNIP as the implementation goes beyond the resilient and reliable programme in the rail plan as is the business case for potential rolling stock solutions. These investments support increases in metro rail services and capacity to ensure metro rail can fulfil its central role in the respective regions public transport networks.

Consistency with the Government Policy Statement on land transport

- 16. The Government Policy Statement on land transport 2021-31 (GPS 2021) sets out delivery of the Rail Plan as a Government commitment to be met through NLTPs. We consider that the activities included in the RNIP are consistent with the investment priorities set out in Section Two (Strategic priorities for Rail) of the Rail Plan.
- 17. We consider that by laying the platform for growth in freight and passenger journeys on the rail network in the future, the RNIP is well aligned with the Better Travel Options and Improving Freight Connections strategic priorities in GPS 2021.
- 18. The Rail Plan notes that a large portion of the benefits of rail result from improved safety outcomes (fewer vehicles on the road means fewer crashes) and impacts on carbon emissions (moving goods and people by rail is much less carbon intensive). Given that the first RNIP is mostly focused on remediating the network and laying a platform for future growth, we do not expect large contributions to the Safety and Climate Change strategic priorities over the next three years. The contribution of the rail network to these two strategic priorities are expected to increase progressively over time as the network is restored to a resilient and reliable state and opportunities for growth emerge.

Integration with relevant Regional Land Transport Plans

19. Significant rail activities or combination of rail activities proposed through the RNIP are expected to be included in the RLTPs. The only significant rail activities proposed for regions in this first RNIP is for the Auckland and Wellington regions to support the delivery of metro rail services. We have

- confirmed that the metro rail activities submitted to you for approval as part of the RNIP have all been included in the Auckland and Wellington RLTPs and given high priority by the respective Auckland and Wellington Regional Transport Committees (RTCs).
- 20. Timing issues with public consultation on the Auckland and Wellington RLTPs (caused by the decision to delay the adoption of the 2021/24 NLTP until August 2021) mean that KiwiRail is only able to consider the draft RLTPs that the respective RTCs have released for consultation. While it is possible that the final RLTPs will change, we consider a change to the proposed rail activities and their priority to be low.
- 21. KiwiRail has worked closely with Auckland Transport and Greater Wellington Regional Council on the proposed metro rail activities and the activities are critical to achieving the respective RLTP objectives. The Auckland and Wellington RLTPs are expected to be adopted in June 2021.

Other specific statutory requirements

22. We are also required to confirm whether several pieces of information are included in the RNIP, including a recommendation on the maximum contribution to be made from the NLTF and a 10-year financial forecast setting out anticipated revenue and expenditure. The RNIP contains this information and Table One sets out where the relevant information can be found in the RNIP.

Table One: Satisfying requirements under Section 22C(1)(b)

Requirement	RNIP reference
A recommendation on the maximum contribution to be made from the NLTF	Schedule1 - Rail Network AC
	Schedule 2 - Public Transport Infrastructure AC
A statement of the specific rail activities/combinations of rail activities to be funded or partially funded using contribution	Schedule1 - Rail Network AC
	Schedule 2 - Public Transport Infrastructure AC
A statement of the revenue (if any) KiwiRail expects to receive in relation to the activities other than from the NLTF	Schedule One
A financial forecast, for the 10-year period starting from the date on which the programme takes effect, of anticipated revenue and expenditure in relation to the activities	Schedule1 - Rail Network AC
CAPSTIGITATION TO THE GOLFFILES	Schedule 2 - Public Transport Infrastructure AC

Summary of assessment findings

- 23. The RNIP meets the specific statutory requirements we are required to assess under s22C. Our review has found that the RNIP makes a solid overall case for investment, and discussions with KiwiRail have revealed that KiwiRail is adopting and using appropriate methodologies to manage assets, anticipate and manage delivery risks and calculate costs.
- 24. However, in many cases (due to constrained timelines and KiwiRail being in a transition stage), we have not been able to review detailed, up-to-date documentation about KiwiRail's processes and methodologies that underpin the RNIP. KiwiRail has provided high-level documentation which provides a degree of confidence but until KiwiRail has fully implemented initiatives to improve its knowledge of the network and increase its capability and capacity, there are some ongoing risks:
 - deliverability of the programme. Delivering the RNIP and other network projects funded
 from other sources represents a large stretch for KiwiRail. There is a risk that KiwiRail will not
 be able to deliver to the level signalled in the RNIP and progress toward the Government's
 strategic rail investment priorities as signalled in the Rail Plan. As a result, the delivery of
 some activities may be delayed and(or) cost more to achieve.
 - uncertainty around the costs of delivering RNIP activities and robustness of 10-year forecast. Cost estimates contained in the RNIP are based on KiwiRail's experience of historic cost data for similar work, supplemented by local knowledge of site-specific issues. KiwiRail acknowledges that the quality and completeness of historical cost data is variable and that there are contextual factors like the impact of COVID on supply chains that makes estimating costs challenging. While the increase in funding will improve KiwiRail's ability to provide more robust cost estimates there is a risk that it will take time to build that capability and knowledge and current estimates may not be robust. This flows through to the 10-year forecast where uncertainty remains as noted above.

This means that the financial estimates in the RNIP are likely to change over the first RNIP as KiwiRail improves its knowledge and business cases for metro projects are completed. History on infrastructure projects suggests that costs will go up rather than down over time and delivering a resilient and reliable rail network may be higher in the long run.

Programme level issues

25. Based on what we have seen, we are confident that KiwiRail either has, or is working to establish good processes and methodologies. The following paragraphs set out some areas where further work is required to increase confidence in KiwiRail's ability to deliver the RNIP and improve cost estimates.

Asset management planning

- 26. KiwiRail's Asset Management Plan for Network Infrastructure 2020-2030 (AMP) was published in June 2019. The AMP sets out a 10-year strategy for the service outcomes and work programmes to provide a resilient and reliable network and provides an initial view of the maintenance and renewals investment required.
- 27. The AMP identifies the service level gap between the current assessment of service level performance for the different types of assets and the performance required to provide a resilient and reliable network. Since the AMP was published, KiwiRail has completed significant work to develop asset class investment plans, a Network Criticality Framework and asset renewals models, which have informed the development of the RNIP asset renewals programme.
- 28. More work is required to improve the quality of data underpinning assessments. KiwiRail intends to assess its level of asset management maturity and has a Network Asset Management Improvement Plan. Overall, the plan seems sensible and aligned with good practice and we will (through the continuous improvement programme) monitor progress on these activities.

Asset renewals programme – development and prioritisation

- 29. KiwiRail has used a multi-criteria prioritisation system to develop its asset renewals programme, focusing on things like health and safety risks, legislative requirements and the criticality of the route (how important it is to the overall network). Available asset data has been supplemented by the knowledge of local teams. The programme is reviewed on an annual basis to ensure it is still appropriate as better asset data becomes available. Greater funding certainty has enabled scoping of potential renewals projects to focus on better whole of life asset performance.
- 30. Overall, this approach is in line with good asset management practice but will improve as better asset data is collected and frameworks currently in place to assess network criticality and levels of service are enhanced.

Costing methodology

- 31. KiwiRail has documented cost methodology processes for different asset classes. All follow a progressive process of refining scope and estimates during the renewal planning process in line with general engineering practices.
- 32. Initial estimates are based on historic cost data for similar work, supplemented by local knowledge of site-specific issues provided by regional staff. KiwiRail acknowledges that the quality and completeness of cost data for completed projects is currently variable and has specifically targeted improvements in recording the actual costs of renewals work in its AMP improvement plan. In addition, KiwiRail intends to move to developing site-specific rates for work rather than using historical averages for planning purposes.

Ability to deliver the programme

- 33. The overall level of investment in rail has stepped up significantly in recent years, and during the development of the RNIP KiwiRail has been developing plans and processes to deliver the volume of network activities included in the RNIP and activities funded from other sources (for example, the New Zealand Upgrade Programme). This work is happening in tandem with efforts to take advantage of long-term funding confidence to deliver increased volumes of basic maintenance and renewals over time.
- 34. In general terms, the delivery of the RNIP as well as the improvement projects is heavily dependent on planning, resources, and logistics. A challenge (magnified in the Auckland and Wellington regions) is securing access to the network to undertake engineering work. KiwiRail has made considerable progress on developing an integrated planning process, both for business-as-usual maintenance and renewal works and improvement programmes.
- 35. Planning for key segments of track commences 18 months before the work is scheduled to take place, which enables progressively more detailed shorter-term planning for procurement and delivery of materials, staff resources and equipment needs to take place. This approach is broadly aligned with planning approaches on other rail networks (outside of New Zealand). It has not been possible to assess the degree to which these integrated planning processes are in regular use or are still being developed.
- 36. KiwiRail is growing both its internal staff capacity and capabilities for delivering maintenance and renewals work throughout the country, as well as developing relationships with engineering contracting companies for support services such as plant supply. These initiatives, including increased numbers of apprentices, are aimed at delivering the increased maintenance and renewals programme on the freight network throughout the year. The initiatives are also intended to provide a large pool of staff who can be deployed to work on improvement and renewals work on the Auckland and Wellington networks during key delivery periods (for example, over public holiday periods).
- 37. There are also issues with accessing necessary materials and expertise, much of which is imported. KiwiRail is working on various initiatives to build a greater pool of rail expertise in New Zealand. We will monitor (as part of the continuous improvement programme) progress on these initiatives.

Addressing Programme Level Issues - Continuous improvement programme

- 38. KiwiRail is in a state of transition, moving away from its historical funding model of annual budget allocations. This short-term funding model inhibits the ability to do robust long-term planning. The RNIP framework provides a greater degree of certainty. In addition, the information we have seen suggests that KiwiRail is working towards implementing robust processes and methodologies.
- 39. Funding needs to flow to KiwiRail to ensure it can deliver a resilient and reliable rail network. For these reasons, we consider that the most effective way to deal with the information gaps and increase confidence is for Waka Kotahi and KiwiRail to work together on a continuous improvement programme, with the support of the Ministry and Treasury.
- 40. We are still clarifying the precise actions that will be included in the continuous improvement programme, but it will centre on improving KiwiRail's asset management evidence base, processes and capacities, ensuring that KiwiRail is developing the resources necessary to deliver the programme and activities are being costed accurately. KiwiRail already plans to deliver a variety of actions related to these issues.
- 41. Working together on the continuous improvement programme will help provide a higher level of confidence and resolve the information gaps. This means that development of the next RNIP (due to be approved in 2024) will be supported by better quality information. We recommend you invite KiwiRail to report back to you by 31 October 2021 on the contents and milestones for its continuous improvement programme.

Level of funding required to deliver the RNIP

42. Through the RNIP KiwiRail is proposing a maximum three-year contribution from the NLTF of \$1,351.7 million. KiwiRail will contribute to the NLTF through the new Track User Charge, but the amount collected will be small (i.e. less than \$50 million over three years). To support delivery of the freight network activities the Crown is injecting \$834.4 million into the NLTF into the Rail Network Activity Class.

Table One: Overview of new rail network investment being put forward through the RNIP for Ministerial approval

Activity Description	21-24 NLTP Activity Class	Total Investment (3 years) (\$m)
Freight Network Renewals	Rail Network	\$789.9
Freight Network Maintenance, operations and management	Rail Network	\$361.0
Freight Network Improvements	Rail Network	\$49.5
Metro Rail Improve <mark>m</mark> ents	PT Infrastructure	\$151.3
TOTAL INVESTMENT PROPOSED THROUGH RNIP TO BE FUNDED FROM THE NLTF		\$1,351.7

- 43. This investment is in addition to existing NLTF commitments for metro rail network activities funded through the current Transitional Rail Activity Class that flow into the 2021-24 NLTP, and the ongoing NLTF contribution toward Auckland Transport's and Greater Wellington Regional Council's metro rail network operating costs as part of their respective public transport services continuous programmes.
- 44. Table Two provides an overview of the total investment through the NLTF that will be invested in rail network activities over the next three years. Please note that the final cost for the metro rail network operations has not yet been agreed and is subject to the final negotiations of the Track Access Agreements, and confirmation of the indicative allocations published by Waka Kotahi. As such, indicative numbers are shown in italics.

Table Two: Total investment in rail network activities planned for 2021-24 NLTP period

Description	21-24 NLTP Activity Class	Total NLTF Investment (3 years) (\$m)
Rail Network Investment Programme	Rail Network and PT Infrastructure	\$1,351.7
Transitional Rail Activities (approved by Waka Kotahi)	PT Infrastructure	\$465.3
Metro Rail Network Operations (funded at normal FARs and approved by Waka Kotahi as part of PT programmes) (Indicative)	PT Services	\$126.5
TOTAL (Indicative)		\$1,943.5

- 45. The RNIP is made up of eleven activities:
 - three activities for freight network (\$1,200.4 million); and
 - eight activities for the metro network (\$151.3 million).
- 46. KiwiRail have advised that it will seek your immediate approval of NLTF under section 22F of the LTMA for the three freight network activities and for five of the eight metro activities for a total three-year contribution from the NLTF of \$1,270.7 million. Waka Kotahi advice on KiwiRail's request is set out below in Section 3. The remaining metro activities will be requested through the 3-year RNIP period as they become ready for approval.

Section 3: Advice on individual activities (Section 22G)

- 47. Section 22G of the LTMA requires us to provide you with advice on the individual activities for which KiwiRail is requesting funding from the NLTF, and a view on whether we consider that you should approve the NLTF request.
- 48. Table Three sets out the activities that have been included in the RNIP. Note that KiwiRail is not requesting funding for every activity at this stage. Detailed analysis of each activity against the LTMA requirements is provided in Appendix One.

Table Three: 2021-24 Rail Network Investment Programme – KiwiRail requests for NLTF

7	#	Region	Activity	Phase	Activity Class	requests for NLTF under s22F on approval of	(including probable mid-
•	1	National	Freight Network Renewals	Implementation	Rail Network	789.9	789.9
	2	National	Freight Network Maintenance and Operations	Implementation	Rail Network	361.0	361.0
	3	National	Freight network improvements	Business Case	Rail Network	49.5	49.5
4	4	Auckland	Additional Traction Feed (West)	Business Case	PT Infrastructure	0.0	57.0
	5	Auckland	European Train Control System Upgrade	Business Case	PT Infrastructure	0.0	4.0
	6	Auckland	Integrated Rail Management Centre	Implementation	PT Infrastructure	35.7	35.7
	7	Auckland	Metro Infill Signalling	Business Case	PT Infrastructure	1.0	15.0

8	Auckland	Progressive fencing and security	Business Case / Implementation	PT Infrastructure	6.0	6.0
9	Auckland	KiwiRail Strategic Future Planning	Implementation	PT Infrastructure	7.0	12.0
10	Wtgn	Wellington Rail Network Re- signalling Renewal	Business Case	PT Infrastructure	20.6	20.6
11	Wtgn	Wellington Network Capacity Improvements	Business Case	PT Infrastructure	0.0	1.0
		TOTAL NLTF			1,270.7	1,351.7

- 49. As part of our advice on each activity under s22G we are required to evaluate whether:
 - (a) the activity is included in the proposed RNIP
 - (b) the activity takes into account the relevant RLTP, any national energy efficiency and conversation strategy and any relevant national or regional policy statements in effect under the Resource Management Act 1991 (RMA)
 - (c) the activity will contribute to the purpose of the LTMA and is consistent with the GPS
 - (d) the activity is efficient and effective.
- 50. The rail activities KiwiRail are seeking NLTF for can be split into three broad categories:
 - an ongoing programme of maintenance and renewal work on the national freight network (outside of Auckland and Wellington) (\$1,150.9 million). This is KiwiRail's equivalent of the local road maintenance and renewal programmes submitted by local government for inclusion in the NLTP. These are approved for three years at the time the NLTP is adopted. We recommend the same for KiwiRail's maintenance and renewal programme.
 - minor improvement activities on the national freight network (\$49.5 million). Most of this funding is to be used to develop business cases, with some minor physical works. We propose these are included in the approval of the maintenance and renewal programme.
 - funding for individual activities on the Auckland and Wellington metro networks (\$151.3 million). We have agreed with KiwiRail that these activities will follow the standard Waka Kotahi Business Case processes. For this reason, we recommend that you approve funding as each phase is completed. Several of these activities have been included in the RNIP to ensure compliance with LTMA requirements but no funding is being requested at this stage.
- 51. Appendix One sets out each activity for which funding is being requested, details compliance with the relevant provisions of the LTMA and provides our advice as to whether you should approve funding or not. You may approve partial or full contributions from the NLTF for each activity.
- 52. As noted in Section Two, we have not been able to develop a fully rounded view of the efficiency and effectiveness of the continuous maintenance and renewal programme proposed for the freight network due to lack of detailed information. The continuous improvement programme we are working to establish with KiwiRail will be key to ensuring increased confidence around the cost estimates and ability to deliver this part of the programme.
- 53. To support the delivery of the Rail Plan and on the basis of continuing to work with KiwiRail to improve our confidence that KiwiRail can deliver the RNIP in a cost-effective way, Waka Kotahi is recommending that you approve KiwiRail's request for NLTF.
- 54. Table Four sets out our analysis as to whether the activities comply with the requirements in Section 22G (a) and (b). Analysis of the activities against the requirements of Section 22G (c) and (d) is set out in Appendix One.

Table Four: Analysis of activities against s22G requirements

Requirement	Assessment
Included in the proposed RNIP	Our assessment of the RNIP has satisfied us that all activities put forward for NLTF are included in the RNIP.
Takes into account relevant RLTPs	KiwiRail has worked closely with AT and GWRC on which metro activities will be included in the RNIP. All metro projects in the RNIP are also in the respective RLTPS and have a high priority.
Takes into account any national energy efficiency and conservation strategy	Maintaining and renewing the existing rail network is necessary to ensure rail freight can continue at its current throughput and meet expected increases in freight volumes. This in turn reduces the heavy freight that would otherwise be transported by trucks and rail uses less energy per tonne of freight than road transport. Rail emits 70% less carbon emissions for every tonne of freight moved compared to movement by heavy truck. Performance measures in the RNIP target a 2% mode shift. Another important aspect is maintenance of the overhead electricity lines on the North Island Main Trunk (NIMT). Multiple electric locomotives are in the process of being refurbished and as they come back online there will be increased demand on this infrastructure. Increased numbers of electric locomotives on the NIMT reduces the quantity of diesel consumed by the rail network — moving towards low-carbon transport where possible. Overall, this improves the energy efficiency of transporting NZ's freight as well reducing use of fossil fuels. If the rail network wasn't maintained or even if sections of it failed on key routes, the impacts would be significant for road freight. Many more heavy truck trips would be required (refer to Value of Rail report) and this would lead to significant congestion, idling time and increased fuel use. Not just from the trucks themselves but also other users of the road network. Removal of temporary speed restrictions on long haul routes will enable locomotives to reach their target fuel burn rate more quickly, meaning improved fuel efficiency.
Takes into account relevant national and regional policy statements under the RMA.	All rail works are assessed against the applicable Resource Management Act 1991 national and regional policy documents for that location at the time of consent decisions being made. A detailed assessment is included in all resource consent applications made for the works to ensure alignment with the planning frameworks. KiwiRail seek to ensure that the rail network is identified as Regionally Significant Infrastructure, or an equivalent, in all Regional Policy Statements with recognition and therefore enabling of this cascading to lower order planning documents. The inclusion of the rail designation and associated maintenance works being enabled in lower order planning documents reflects higher order planning documents and aligns with the direction in these for the transport network.

Section 4: Other issues

Rail safety regulator view

- 55. In addition to working with KiwiRail, AT and GW to fund the rail network, we have primary regulatory responsibility for rail safety in New Zealand under the Railways Act 2005. Our role is to provide independent assurance to stakeholders and the public of the effective management of rail safety risks by rail participants.
- 56. Section 104A of the LTMA creates a Director of Land Transport role within Waka Kotahi, reinforcing the independence of the regulatory functions that we are responsible for.
- 57. As the independent safety regulator, we are impartial to funding sources but welcome seeing additional funding that will help rail participants contribute to a safer rail system. This first RNIP produced by KiwiRail constitutes a first step to rejuvenating Aotearoa's rail network that has suffered from years of under-investment. We look forward to working with KiwiRail as the projects within this investment programme are scoped and delivered.
- 58. We have an expectation that safety criteria and legislative requirements are considered in the design stage of projects, in order to maximise safety benefits and investment outcomes. Once an asset is built, the safety risks arising from the asset must be managed for the asset's lifetime. The more safety risks that can be engineered out of an asset during its design and construction, the safer the asset will be.
- 59. Working with the relevant stakeholders, we will continue to develop and implement processes for identifying and managing system risk. Alongside this, we will be ensuring the requirements of the Railways Act 2005 are being met, including that rail participants, and in particular rail licence holders such as KiwiRail, are managing safety risks effectively and meeting the 'so far as is reasonably practicable' test, including during the design and build phase.
- 60. Our regulatory strategy 2020-2025, Tu Ake Tu Maia, sets out the strategic intent of our regulatory model, and the capability shifts required to be a real-world regulator. This journey is well underway, and we will continue to work with KiwiRail in the spirit of our Te Ao Māori principles in the next phase as they seek to establish a reliable and resilient network.

Broader implications for the NLTF

- 61. The NLTF is the key mechanism for funding the delivery of the Government's transport priorities as set out in GPS 2021. The NLTF is under significant pressure, with relatively little discretionary funding available once existing commitments are addressed. For this reason, Waka Kotahi has signalled that we will only be able to accommodate investment at the bottom end of the activity class ranges set out in GPS 2021.
- 62. Waka Kotahi will continue to discuss with you the pressures on the NLTF and how it is planning to manage these pressures, including how to handle potential requests from KiwiRail for more funding above the maximum three-year contribution signalled in the RNIP (\$1,351.7m) and specifically what the funding source for any cost increases might be.
- 63. It should also be noted that the funding approved for rail activities in the RNIP is ring-fenced through a specific appropriation and cannot be reallocated across the wider NLTP in the event that some may be unspent.

Waka Kotahi has reviewed KiwiRail's procurement procedure

64. Section 22H of the LTMA requires KiwiRail to approve one or more procurement procedures that will apply to the delivery of rail activities. Before approving, KiwiRail is required to consult with us. A procurement procedure has been provided to Waka Kotahi for the above purpose. That procurement procedure is intended to cover all outsourced expenditure required to deliver rail activities in the RNIP.

- 65. Section 22H(2) of the LTMA states that any such procurement procedure must be 'designed to obtain best value for money ... and take into account current government procurement practices.' The procurement procedure provided to Waka Kotahi is consistent with what we would expect of a government agency that, like Waka Kotahi, is required to follow most of the Government Procurement Rules (GPR). Like the GPR themselves it is focused on the sourcing / supplier selection process. Given that the approach to procurement described is based on the GPR, follows public sector standards of fairness, etc., is generally consistent with the advice provided by the Ministry of Business, Innovation and Employment (as the government Procurement Functional Leader), and is managed through a conventional, modern, sophisticated procurement function, then value for money outcomes should be obtained through the commercial arrangements subsequently established.
- 66. When Waka Kotahi assesses a business case for an improvement activity and considers 'efficiency and effectiveness' (refer LTMA section s22G(1)(d)), we may offer KiwiRail further advice on the application of its procurement procedure to that activity.

Appendix One: 2021/24 Rail Network Investment Programme – Overview of Rail Activities

Title of activity or combination	Overview	Compliance with Section 22G(1)(b)	Referenced in RNIP?	Consistent with, and referenced in relevant RLTP?	Contributes to the LTMA purpose and is consistent with the GPS	Is the activity efficient and effective?	Funding requested	Recommendation				
	National Rail Network											
Freight network renewals	Continuous programme of renewal work on the national freight network	Yes	Yes	N/A	Activity contributes to the LTMA purpose because investing in rehabilitation of the national rail network will enable it to operate more effectively, efficiently and safely. Activity aligns to the Improving Freight Connections strategic priority in the GPS.	We are not able to say with a certainty that the proposed activity is efficient and effective. However, our review of the freight network programme within the RNIP has provided some assurance around the reasonableness of the funding requested Based on the evidence we have seen, KiwiRail has relatively robust processes and methodologies and is working to improve them The continuous improvement programme being developed will be key to developing higher levels of confidence.	\$789.9 million requested for implementation.	Approve on date of RNIP approval				
Freight network maintenance and operations	Continuous programme of maintenance work, along with funds to purchase new plant and equipment	Yes	Yes	N/A	Activity contributes to the LTMA purpose because investing in rehabilitation of the national rail network will enable it to operate more effectively, efficiently and safely. Activity aligns to the Improving Freight Connections strategic priority in the GPS.	We are not able with certainty that the proposed programme is efficient and effective. However, based on the evidence we have seen, KiwiRail has relatively robust processes and methodologies and is working to improve them. The continuous improvement programme being developed will be key to developing higher levels of confidence.	\$361 million requested for implementation	Approve on date of RNIP approval				
Freight network improvements	Funding requested mainly to develop business cases for minor improvements to the national freight network, with some constructing beginning in 2023/24	Yes	Yes	N/A	Activity contributes to the LTMA purpose because investing in rehabilitation of the national rail network will enable it to operate more effectively, efficiently and safely. Activity aligns to the Improving Freight Connections strategic priority in the GPS.	We are not able to say with certainty that these improvement projects are efficient and effective. However, most of the funding is intended to develop business cases. KiwiRail will be delivering the business cases through its Capital Projects and Asset Development (CPAD) methodology. As the individual activities move through different stages, continued input and assurance will be provided by Waka Kotahi and progress will be reported through the agreed performance monitoring regime.	\$49.5 million requested for business cases and minor implementation works.	Approve on date of RNIP approval				
					Auckland Metropolitan Rail Network							
Additional Traction Feed (West)	Installation of an additional grid exit point and traction power feed to the Auckland rail network.	Yes	Yes	Consistent with, and referenced on page 11 of the Auckland RLTP, Appendix 3.	Activity contributes to the LTMA purpose by enabling the Auckland rail network to operate more efficiently/effectively. Aligns to the Better Travel Options strategic priority in GPS 21/31.	The activity has been assessed and has an indicative profile of: GPS Alignment – High Scheduling – High Efficiency – Low A business case for this activity has already been funded and is currently under development. Implementation funding may be requested later in the 2021/22 financial year.	No funding is requested at this time.	No funding decision required on date of RNIP approval. A request for \$57 million will be submitted to you when ready for approval.				

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Auckland Metro Network – ETCS Upgrade	Upgrade of the Auckland metro train control system to Level 2.	Yes	Yes	Consistent with, and referenced on page 11 of the Auckland RLTP, Appendix 3.	Activity contributes to the LTMA purpose by displaying signalling and movement authorities in the train cab, improving safety and optimising train movements on the network. Activity aligns to the Better Travel Options strategic priority in GPS 21/31.	The activity has been assessed and has an indicative profile of: GPS Alignment – High Scheduling – High Efficiency – Low	No funding is requested at this time. Funding may be requested to develop a business case in the 2023/24 financial year.	No funding decision required on date of RNIP approval. A request for \$4 million will be submitted to you when ready for approval.
Integrated rail management centre and emergency management systems	Establishing the Integrated Rail Management Centre (IRMC) in Auckland.	Yes	Yes	Consistent with, and referenced on page 11 of the Auckland RLTP, Appendix 3.	Activity contributes to the LTMA purpose by providing for greater resilience in national train control functions. Should an event affect Wellington, the IRMC in Auckland will be able to carry out these functions. Activity aligns to the Better Travel Options strategic priority in GPS 21/31.	Waka Kotahi supports the proposed investment. A Detailed Business Case for this activity has been assessed and has a profile of: GPS Alignment – High Scheduling – High Efficiency – Low We make the following points from our assessment: the activity has a benefit/cost ratio of approximately 1.0 but there are significant resilience benefits to having a second management centre which have not been monetised in the event of an outage in Wellington, the second management centre would mitigate the need for a national speed restriction there is urgency to establish the second management centre to complement the operations of the City Rail Link (CRL) further work is required to complete the Financial and Management Cases (i.e. lease/purchase option for the required building) and this may have an effect on the project cost.	A maximum of \$35.7 million for implementation.	Approve on date of RNIP approval
Auckland Metro Infill Signalling	Installing additional signalling infrastructure on the Auckland metro network	Yes	Yes	Consistent with, but not specifically included in the Auckland RLTP.	Contributes to the LTMA purpose because adding more signals allows for more efficient operation of the network. Without these additional signals, the 20 trains per hour envisaged as part of the CRL project cannot be realised. Aligns to the Better Travel Options strategic priority in GPS 21/31.	Waka Kotahi supports the proposed investment. A Project Brief has been assessed and has a profile of: GPS Alignment – High Scheduling – High Efficiency - Low	A maximum of \$1 million for business case development.	Approve \$1 million for business case on date of RNIP approval. A request for \$14 million for the subsequent implementation phase will be submitted to you when ready for approval.
Progressive fencing and security	Fencing across the network does not currently meet requirements and progressive investment to address this is required.	Yes	Yes	Consistent with, and referenced on page 11 of the Auckland	Contributes to the LTMA purpose through increasing the safety and security of rail yards to ensure that the network can operate in an efficient, safe and secure manner – including guarding against track incursions.	Waka Kotahi supports the proposed investment. A Project Brief has been assessed and has a profile of: GPS Alignment – High Scheduling – High Efficiency – Low	A maximum of \$6 million for business case development and implementation.	Approve on date of RNIP approval

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				RLTP, Appendix 3.	Aligns to the Better Travel Options strategic priority in GPS 21/31.	We note that this will be an ongoing activity and will continue into future RNIP and NLTP periods.		
KiwiRail Strategic Future Planning	Funds to support KiwiRail to undertake strategic planning for future investments in the Auckland network.	Yes	Yes	Consistent with, and referenced on page 11 of the Auckland RLTP, Appendix 3.	Contributes to a more effective and efficient network by providing funding to ensure that rail projects are considered within the broader transport and land use planning context. For example, this funding will enable KiwiRail to better integrate with ATAP, the Strategic Growth Alliance, the Regional Land Transport Committee and other planning forums in and around Auckland. Aligns to the Better Travel Options strategic priority in GPS 21/31.	Waka Kotahi supports the proposed investment. A Project Brief has been assessed and has a profile of: GPS Alignment – High Scheduling – High Efficiency - Low	A maximum of \$7 million. Further funding requests may be forthcoming during the RNIP and NLTP period.	Approve on date of RNIP approval
					Wellington Metropolitan Rail Network			
Wellington Rail Network Resignalling Renewal	Renewal of the Wellington Metropolitan Rail Network Resignalling and Train Control System to a modern, safer and more operationally flexible system	Yes	Yes	Consistent with, and referenced on page 59 of the Wellington RLTP	Activity contributes to the LTMA purpose by enabling the Wellington metro network to operate in a safer and more operationally flexible way. Aligns to the Better Travel Options strategic priority in the 21/31 GPS. We note this activity included in the Rail Plan under the capacity for growth investment priorities rather than resilient and reliable. We consider it is important to invest in a business case now to set the project up for success in future periods and to obtain certainty on the cost, benefits, and risks of the project.	Waka Kotahi supports the proposed investment. An Indicative Business Case has been assessed and has a profile of: GPS Alignment – High Scheduling – Medium Efficiency – Low We make the following points from our assessment: the activity has an indicative benefit cost ratio of between 1.7 and 2.2 based on the initial option analysis an appropriate long list of options has been developed and a shortlist has been defined to move through to the Detailed Business Case phase the next phase has been well planned and is supported by all stakeholders.	A maximum of \$20.6 million	Approve \$20.6 million for detailed business case on date of RNIP approval. Subsequent implementation phase will form part of future RNIP and NLTP periods.
Wellington network – further capacity improvements	The overall programme considers the replacement of all existing longer-distance rail rolling stock on the Wairarapa and Manawatu lines, with supporting improvements to maintenance facilities, stations and network infrastructure. KiwiRail are responsible for network infrastructure portion.	Yes	Yes	Consistent with, and referenced on page 59 of the Wellington RLTP	Activity contributes to the LTMA purpose by enabling the Wellington metro network to operate in a safer and more operationally flexible way. Aligns to the Better Travel Options strategic priority in the 21/31 GPS. We note this activity included in the Rail Plan under the capacity for growth investment priorities rather than resilient and reliable. We consider it is important to invest in a business case now to set the project up for success in future periods and to obtain certainty on the cost, benefits, and risks of the project. We also note the business case will enable certainty of implementation timing to be confirmed, and potential investment requirements		No funding is requested at this point.	No funding decision required on date of RNIP approval. A request for \$1 million will be submitted to you when ready for approval.

in rolling stock which would be outside of future	1	
RNIP's.		

Total NLTF contribution requested at this time

\$1,270.7 million

Appendix Two: Metropolitan rail investments already approved by the Waka Kotahi Board

Note on table: This table summarises rail investments already approved (and still being delivered) by the Waka Kotahi Board through the Transitional Rail activity class in the 2018/21 GPS.

Activity and location	Summary	Current Phase	2021/22 (\$m)	2022/23 (\$m)	2023/24 (\$m)	Total NLTF Investment (3 years) (\$m)
Rail Network Growth Impact Management (Auckland)	The Rail Network Growth Impact Management project provides for a programme of 'catch up' renewals and enhancements required to bring the metro network up to a standard compatible with modern high frequency metro and freight operations. This includes replacement of legacy assets and renewal of underlying formation and drainage.	Implementation	\$116.52	\$67.82	\$61.14	\$245.48
Wellington Metro Upgrade Programme Stage Three (Wellington)	A package of catch-up renewals of track and civil engineering infrastructure approaching the end of its useful life. The primary focus is the Wairarapa Line as well as other critical track infrastructure on the busiest parts of the network.	Implementation	\$74.73	\$53.04	\$18.4	\$146.17
Wellington Metro Upgrade Programme Stage Four (Wellington)	Rail infrastructure network capacity improvements on the Wellington Metro Railway Network to remove key network constraints and: Improve peak service frequency and capacity and provide a higher quality passenger rail service Cater for forecast peak passenger demand through to 2030 Ensure balanced mode share between road and rail during peak periods and increase the resilience of the wider transport network	Implementation	\$44.7	\$22.64	\$2.06	\$69.4
Long Distance Rolling Stock and Service Improvement (Wellington)	Replacement of all existing longer-distance rail rolling stock on the Wairarapa and Manawatu lines with a fleet of 15 four-car DMMUs (Dual Mode Multiple Unit), with supporting improvements to maintenance facilities, stations and network infrastructure.	Detailed Business Case	\$4.2	\$0	\$0	\$4.2
		Total funding	\$240.15	\$143.5	\$81.6	\$465.25